Audit Report

COMMERCIAL CONTRACT FOR TOTAL LOGISTICS SUPPORT OF AIRCRAFT AUXILIARY POWER UNITS

Report No. D-2000-180 August 31, 2000

Office of the Inspector General
Department of Defense

Additional Copies

To obtain additional copies of this audit report, contact the Secondary Reports Distribution Unit of the Audit Followup and Technical Support Directorate at (703) 604-8937 (DSN 664-8937) or fax (703) 604-8932 or visit the Inspector General, DoD, Home Page at: www.dodig.osd.mil.

Suggestions for Future Audits

To suggest ideas for or to request future audits, contact the Audit Followup and Technical Support Directorate at (703) 604-8940 (DSN 664-8940) or fax (703) 604-8932. Ideas and requests can also be mailed to:

OAIG-AUD (ATTN: AFTS Audit Suggestions)
Inspector General, Department of Defense
400 Army Navy Drive (Room 801)
Arlington, VA 22202-2884

Defense Hotline

To report fraud, waste, or abuse, contact the Defense Hotline by calling (800) 424-9098; by sending an electronic message to Hotline@dodig.osd.mil; or by writing to the Defense Hotline, The Pentagon, Washington, DC 20301-1900. The identity of each writer and caller is fully protected.

Acronyms

APU	Auxiliary Power Unit
BCA	Business Case Analysis
CRR	Cost Recovery Rate
DLA	Defense Logistics Agency
DVD	Direct Vendor Delivery
IPV	Industrial Prime Vendor
IR&D	Independent Research and Development
ISO	International Standards Organization
LECP	Logistics Engineering Change Proposal
MFHBUR	Mean Flight Hours Between Unscheduled Removals
NADEP-CP	Naval Aviation Depot - Cherry Point
NAVAIR	Naval Air Systems Command
NAVICP	Naval Inventory Control Point
NAVSUP	Naval Supply Systems Command
PwC	PricewaterhouseCoopers
NIIN	National Item Identification Number
TLS	Total Logistics Support

INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
ARLINGTON, VIRGINIA 22202-2885

August 31, 2000

MEMORANDUM FOR DIRECTOR, DEFENSE LOGISTICS AGENCY
NAVAL INSPECTOR GENERAL

SUBJECT: Audit Report on Commercial Contract for Total Logistics Support of Aircraft Auxiliary Power Units (Report No. D-2000-180)

We are providing this audit report for review and comment. We considered management comments on a draft of this report when preparing the final report.

As a result of meetings with the Navy after the draft report was issued, we made adjustments to the calculations in Tables 2 and 3. The Navy and Defense Logistics Agency comments on the draft report conformed to the requirements of DoD Directive 7650.3 and further responses are not required.

We appreciate the courtesies extended to the audit staff. Questions on the audit should be directed to Mr. Terry L. McKinney at (703) 604-9288 (DSN 664-9288) or Mr. Henry F. Kleinknecht at (703) 604-9324 (DSN 664-9324). See Appendix E for the report distribution. The audit team members are listed inside the back cover.

Robert J. Lieberman
Assistant Inspector General
for Auditing

Office of the Inspector General, DoD

Report No. D-2000-180 **August 8, 2000**
(Project No. D2000CF-0061)

Commercial Contract for Total Logistics Support of Aircraft Auxiliary Power Units

Executive Summary

Introduction. This report is one in a series involving innovative purchasing strategies for commercial and noncommercial spare parts. This report addresses the repair and logistics support of auxiliary power units used on Navy C-2, F/A-18, P-3, and S-3 aircraft and other associated reparable items. The Naval Inventory Control Point - Philadelphia, is responsible for overall management of the auxiliary power units (reparable items). The Navy awarded Honeywell a 10-year, firm-fixed price contract valued at $189 million that would provide total logistics support for the auxiliary power units. The contractor is paid a fixed rate for each aircraft flight hour (also called a power-by-the-hour type contract). The Navy's primary objective in awarding the performance-based, requirements contract was to reduce the cost of managing and distributing reparable components to worldwide Navy operations and maintenance organizations while increasing system reliability, maintainability, and related spare parts availability. The objective would be accomplished by shifting the responsibility from the Government to the private sector. This shift of total logistics support is designed with the intent of reducing the manpower, infrastructure, facilities, tooling, and inventory the Government employs to maintain the equipment. The auxiliary power units represent 76 reparable parts that are repaired by the Naval Aviation Depot, Cherry Point with a small number of parts repaired on individual contracts with Honeywell. The Defense Logistics Agency procures and manages over 90 percent of the more than 1,503 consumable items used to repair the auxiliary power units. Under the total logistics support contract, Honeywell would act as the prime contractor, procure and manage all consumable items, and subcontract the repair effort to the Naval Aviation Depot, Cherry Point on a cost-reimbursable basis.

Audit Objectives. The primary audit objective was to determine whether the cost savings, availability, and reliability data used in the business case analysis prepared by the Navy supported the decision to award a commercial contract to Honeywell for total logistics support of aircraft auxiliary power units. The audit also reviewed the cost savings and benefits from reduced maintenance times, longer mean time between failures, and the impact from technology refreshment.

Audit Results. The cost savings, availability, and reliability information used in the business case analysis was based on questionable data and judgments and, therefore, did not support the decision to award the total logistics support contract to Honeywell. Also, the impact of transferring management responsibility for procurement and

management of consumable items for selective prime customers from the Defense Logistics Agency to the total logistics support contract was not considered in the business case analysis. Further, the impact of the total logistics support contract on other ongoing Defense Logistics Agency initiatives such as the industrial prime vendor program, or the Honeywell rapid improvement team, were also not factors in the business case analysis. During detailed discussions after the draft report was issued, the Navy identified "other quantitative benefits" of the contract valued at $34.8 million. Considering these other benefits, we recalculated that the total logistics support contract could cost the Navy an additional $357,555 to $7,223,475 rather than saving $13.98 million over the 10-year contract period. The additional cost is substantially lower than the $31 million disclosed in the draft report. However, the cost still represents a loss on the contract instead of the $13.98 million savings claimed in the business case analysis. The Navy awarded the contract on June 8, 2000. For details of the audit results, see the Finding section of the report.

Summary of Recommendations. We recommend that the Commander, Naval Supply Systems Command issue guidance that directs the use of updated cost data in all business case analyses. We also recommend that the Commander include cost savings associated with depot washout and carcass loss cost recovery rates only when the actual costs can be quantified for those items on the direct vendor delivery contract. We recommend that the Commander, Naval Inventory Control Point - Philadelphia not award the total logistics support contract until a business case analysis is prepared using sound reasoning and reliable data. The analysis must address impact on cost recovery rates, consider alternatives for the P-3 logistics engineering change proposal, and the drawdown for consumable items inventory managed by the Defense Logistics Agency. A total logistics support contract should also prohibit Honeywell from receiving reimbursement on future Government contracts for any Independent Research and Development costs associated with technology insertion on the auxiliary power units. We also recommend that, before contract award, the Director, Defense Logistics Agency determine the impact of changing consumable item support for selective prime customers from the Defense Logistics Agency to the contractor and report on the effect.

Management Comments. The Navy agreed to use the most current pricing data available but stated constructing a "should cost" repair price would be labor intensive and speculative since the "should cost" repair price may not match charges eventually billed by the repair facility. The Navy agreed that using actual cost data was more precise and that it was analyzing alternatives for capturing the true impact of depot washout and carcass loss factors. The Navy manually calculated rates and revised the business case analysis to show an overall benefit to the Navy of $32.6 million and awarded the contract. The Navy agreed to use appropriate cost recovery rates and identify any additional surcharges applicable to the total logistics support contract. The Navy agreed not to fund the procurement of any additional P-3 (95-2) turbine wheels. The Navy did not agree with recommendations relating to the logistics engineering change proposal for the P-3 aircraft, but stated that the engineering change was rendered moot with award of the total logistics support contract. The Navy incorporated an inventory drawdown provision in the total logistics support contract. The Navy stated Honeywell would place just-in-time delivery orders at a rate well within its production capacity to demand. The Navy agreed to use a consistent methodology to

calculate reliability for the auxiliary power units and included the methodology within the terms and conditions of the total logistics support contract. The Navy also inserted a clause into the contract directing Honeywell to exclude any costs associated with technology insertion related to the total logistics support contract from its independent research and development cost pools.

The Defense Logistics Agency commented that the overall impact to Agency's effectiveness, consumable item prices, and customer cost recovery rates for this one contract was negligible. However, the cumulative effect of the Services' future initiatives for contractor logistics support could adversely impact the Defense Logistics Agency if the agency is not included in the early planning and given the opportunity to sell off consumable inventory and adjust future requirements accordingly.

Although not required to comment, the Deputy Under Secretary of Defense (Acquisition Reform) commented that the Navy performed appropriate business case analyses and should be encouraged to award and begin this novel initiative. The Deputy Under Secretary commented that withholding of funds (relating to the procurement of the P-3 (95-2) turbine wheels) was a contractual action taken to address a deficiency in work performed by the contractor. The Deputy Under Secretary also commented that Honeywell was required to allocate independent research and development costs over a base representing the total activity of that business unit and that independent research and development costs do not include costs of effort required in performance of a contract. See the Finding for a complete discussion of management comments and our response, and the Management Comments section for the complete text of management comments.

Audit Response. The Navy comments were partially responsive. The Defense Logistics Agency comments were fully responsive. Although the Navy agreed to use current repair prices to support business case analysis decisions, the repair prices that the Navy continues to use are based on actual cost data that are 3 to 4 years old. We feel these data are not adequate or are at best, high risk to support real-world business decisions. At a minimum, the Navy needs to verify that component repair prices for the major cost drivers are in-line with actual costs to repair the items. While we did not agree with the Navy's calculation of benefits relating to the total logistics support contract, the upper and lower bounds of risk associated with execution of the contract were identified. During the June 2, 2000 meeting, the Navy acknowledged that there was risk associated with the total logistics support contract. The Navy stated that even if the risk was at the upper bound, meaning that the contract would cost more than the current method of support, the risk was acceptable. We will work closely with the Navy to evaluate the fruition of the benefits of the total logistics support contract to include the "other quantitative benefits." We request that the Navy provide additional comments on Recommendation 1.a. by October 10, 2000.

We fail to understand why Acquisition Reform took exception to recommendations for which the Navy agreed to take appropriate action. While we always appreciate receiving comments on draft reports from the Under Secretary of Defense for Acquisition, Technology, and Logistics, these comments merely illustrate that Acquisition Reform has been out of the loop and has chosen not be a prime player in this important matter.

Table of Contents

Background

Spare Part Audits. This report is one in a series of reports involving innovative purchasing strategies for commercial and noncommercial spare parts. This report addresses a total logistics support (TLS) contract for the repair and logistics support of auxiliary power units (APUs) used on C-2, F/A-18, P-3, and S-3 aircraft and other subordinate components. The APUs are repaired by the Naval Aviation Depot, Cherry Point (NADEP-CP). Honeywell was also awarded separate contracts to repair a small number of parts. The Defense Logistics Agency (DLA) supplies the consumable items needed to repair the items. Honeywell will assume responsibility for supplying consumable items to NADEP-CP under the TLS contract, while DLA will continue to manage the consumable items for other DoD customers. In an effort to reduce weapon system costs and associated inventory investment while maintaining fleet readiness, the Naval Inventory Control Point - Philadelphia (NAVICP) evaluated options to reduce the costs associated with maintenance and logistical support for reparable items. NAVICP procures and manages maintenance and logistical support of reparable aviation parts, including the APUs. NAVICP evaluated the direct vendor delivery (DVD) concept, where the main objective was to reduce costs by increasing the systems' reliability, maintainability, and related spare parts availability as a result of shifting the responsibility from the Government to the private sector. This shift of total logistics support, in turn, was designed with the intent of reducing the manpower, infrastructure, facilities, tooling, and inventory the Government maintained to support the equipment. NAVICP identified the APUs on the C-2, F/A-18, P-3, and S-3 aircraft as potential DVD candidates and prepared a business case analysis (BCA) that evaluated the feasibility of awarding a DVD/TLS contract to Honeywell (formerly Allied Signal Aerospace). In June 1999, Honeywell and Allied Signal Aerospace merged, naming the combined company Honeywell.

Related Initiatives. Several DoD initiatives are in-process relating to goods and services provided by Honeywell (often the initiatives overlap). In August 1998, the Defense Industrial Supply Center, Philadelphia, Pennsylvania, awarded an "Industrial Prime Vendor" (IPV) contract to Raytheon E-Systems Incorporated to support the NADEP-CP. The goal of the contract was to provide a virtual depot that reduced cycle times and inventories by replacing inventory with information to reduce response times. Almost 18 percent (267 of 1,503) of the various consumable items used to repair the APUs were already included on the IPV contract.

In June 1999, the Director, DLA and the Deputy Under Secretary of Defense (Acquisition Reform) chartered a Rapid Improvement Team for the development of a new DLA/Honeywell strategic alliance relationship to improve customer support and responsiveness. DLA intends to pursue agency-wide terms and conditions, and corporate contracts with Honeywell that will result in reductions in the cost of consumable items, decreased response times, and more accurate forecasting, combined with more efficient administration. In response to a request from the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics, the Office of the Inspector General, DoD,

performed a review and provided analysis regarding the sole-source Honeywell consumable items under consideration for the DLA corporate contracts. The review included a site visit to the NADEP-CP, where the audit team learned of the pending NAVICP contract with Honeywell for total logistics support for the APUs. About a third (11 items) of the consumable items included on the initial DLA "catalog" demand contract with Honeywell would also be included on the NAVICP TLS contract. The intent of the corporate contracts is to eventually include all of the sole-source Honeywell consumable items.

In October 1999, the Commander, Air Force Materiel Command, and the Deputy Under Secretary of Defense (Acquisition Reform) also chartered a Rapid Improvement Team for the development and deployment of a strategic supplier alliance with Honeywell. The strategic supplier alliance would result in a corporate contract with Honeywell for repair and spare items (reparable items).

Improvements at NADEP-CP. NADEP-CP has recently implemented the International Standards Organization (ISO) 9000 to improve quality system standards. The ISO 9000 family of standards represents an international consensus on good management practices. The Federal Times, December 6, 1999, reported that inefficient operations were causing the Naval Engine Airfoil Center, NADEP-CP to lose money, making it a target for closure, prior to implementing ISO 9000. The Airfoil Center, under the first of a three phase implementation plan, began working toward ISO 9000 standards in August 1996 and became certified in March 1997. The Airfoil Center quadrupled the number of parts processed and doubled total sales in the first 3 years. Profits averaged from $3.9 million to $5.5 million over the 3-year period, compared to a loss of $1.7 million in 1995, before ISO 9000. Prices decreased annually by up to 10 percent. The Airfoil Center also reported a 50 percent decrease in turn-around-time over the same period. The entire depot became ISO 9000 certified on November 19, 1999. Accordingly, NADEP-CP will be much more effective and efficient in the future.

Objectives

The primary audit objective was to determine whether the cost savings, availability, and reliability data used in the business case analysis prepared by the Navy supported the decision to award a commercial contract to Honeywell for total logistics support of aircraft auxiliary power units. The audit also reviewed the cost savings and benefits from reduced maintenance times, longer mean time between failures, and the impact from technology refreshment. See Appendix A for a discussion of the audit scope, and methodology, and Appendix B for prior audit coverage related to the audit objectives.

Total Logistics Support Contract for Aircraft Auxiliary Power Units

The Naval Inventory Control Point, Philadelphia, (NAVICP) based its decision to award a contract for total logistics support (TLS) of C-2, F/A-18, P-3, and S-3 aircraft auxiliary power units (APUs) on a business case analysis (BCA) that used questionable data and judgments. This decision occurred because the BCA methodology used to support the contract award:

- used approved Navy component repair prices that were based on outdated cost data and included depot demands for items that were not appropriate,
- credited savings associated with NAVICP cost recovery rates for depot washout and carcass loss that were not justified,
- failed to consider alternatives for the P-3 logistics engineering change proposal (LECP) that provided more effective and less costly results and failed to fully account for P-3 retrofits in the BCA, and
- did not adequately consider the impact of transferring the responsibility for procurement and management of consumable items from DLA for selective prime customers to the TLS contractor.

In addition, other proposed TLS contract benefits related to improved parts availability and improved APU reliability remain questionable and award of the contract would adversely impact the effectiveness of DLA to manage consumable items. During detailed discussions after the draft report was issued, NAVICP identified "other quantitative benefits" of the TLS contract totaling $34.8 million. Considering these other benefits, we recalculated that the TLS contract could cost the Navy an additional $357,555 to $7,223,475 rather than saving $13.98 million over the 10-year contract period. These additional costs are substantially lower than the $31 million disclosed in the draft report. However the costs still represent a loss on the contract instead of the $13.98 million savings claimed in the business case analysis. The Navy awarded the contract on June 8, 2000.

Different Methodologies for Business Case Analysis

Business Case Analysis. NAVICP requested that the Navy Price Fighters prepare the BCA. The Navy Price Fighters report to the Naval Supply Systems Command (NAVSUP). Navy Price Fighters then contracted out the effort to a private contractor. The BCA was prepared to determine whether it was economically feasible (objective being break even costs or better with other

benefits) for the NAVICP to enter into a multiple year DVD/TLS contract with Honeywell. The analysis compared the Navy cost of ownership without the DVD contract to a proposal from Honeywell that also improves reliability and availability. The theory was that NAVICP will award Honeywell, as the prime contractor, a firm-fixed price contract per flight hour by aircraft platform. Honeywell will, in turn, subcontract the repair work to the NADEP-CP under a cost-reimbursement contract. In essence, Honeywell instead of the DLA becomes the material manager for the consumable items used by the NADEP-CP to repair the APUs.

Original BCA. The original BCA, dated August 24, 1998, used a 5-year average of historical repair costs to compute the Navy cost baseline. The analysis concluded that the contractor proposed price exceeded the Navy cost over a 10-year period by $54.9 million. In addition, the original contractor proposal did not specify that Honeywell would increase APU reliability or provide consumable items at the depot level.

Approved BCA. The approved BCA, dated September 3, 1999, incorporated a newly established required format for Navy BCAs. In addition, based on verbal guidance from NAVICP, the contractor performing the analysis used 1 year of cost data, FY 1998 demands and FY 1999 repair prices, rather than a 5-year historical cost average to develop the baseline cost. Appendix C provides a list of all APU items with BCA demands and repair prices. The BCA summarized costs associated with the Navy Working Capital Fund into two major categories, material and operations costs. Material costs (cost of goods sold) included fully burdened repair costs and material maintenance costs such as, depot washout, carcass loss, and obsolescence. Operations costs included NAVICP-related costs, storage, and transportation.

Table 1 summarizes the BCA conclusion that the Navy would save $13.98 million by awarding the DVD contract to Honeywell.

Table 1. BCA Cost Comparison of DVD and Non-DVD Alternatives

Without DVD	Amount
Material costs	$196,156,100
Operation costs	34,017,000
Total	**$230,173,100**
With DVD	
Material costs	$189,084,100
Operation costs	27,105,800
Total	**$216,189,900**
With DVD Cost Savings	**$13,983,200**

PricewaterhouseCoopers Validation of BCA. In February 2000, NAVICP contracted with PricewaterhouseCoopers (PwC) to review the approved BCA to determine the reasonableness of the cost data and assumptions, and to evaluate its validity as a useful tool for making critical decisions. NAVICP also contracted with PwC to evaluate the BCA methodology after we questioned the accuracy of the BCA. After a 2-week review, PwC concluded that the BCA was a fair and reasonable tool for evaluating the proposed contract. The PwC review determined that critical areas of the BCA were both over and under stated, with a net savings reduction of $1.8 million. Specifically, PwC determined that 1 year of cost data was insufficient to calculate the cost of goods sold and recommended that future BCAs use at least 3 years of historical cost data. PwC also concluded that the use of aggregate depot washout and carcass loss cost recovery rates was appropriate for the BCA and recommended the use of a 5-year historical average for each rate. We disagree with the results and conclusions reached by PwC in regard to cost of goods sold, carcass loss, and depot washout and our discussion is detailed in the following paragraph.

Questioned BCA Costs and Adjustments

Summary of Analysis. Our analysis of the BCA line item costs did not support the conclusion that the Navy would save $13.98 million if NAVICP awarded the DVD/TLS contract to Honeywell. We question the Navy's cost methodology on both alternatives, with and without the DVD contract, and determined that rather than offering savings to the Navy, the DVD contract would cost the Navy at least an additional $31 million. During detailed discussions after the draft report was issued, NAVICP identified "other quantitative benefits" of the TLS contract totaling $34.8 million. When these other benefits were included in our analysis, we calculated that the TLS contract could cost the Navy an additional $357,555 to $7,223,475 rather than saving $13.98 million over the 10-year contract period. The Navy recognized the "upper and lower bounds of risk associated with execution of the contract" and subsequently awarded the contract on June 8, 2000.

Tables 2 and 3 show our adjustments to both the with and without DVD cost alternatives and the impact of those adjustments on the DVD contract.

Table 2. Questionable BCA Costs and Adjustments

Description		June 8, 2000 changes	
Adjustment to without DVD Costs	Draft Report	$113.54 labor rate	$90.97 labor rate
Repair cost prices*	$8,962,714	$12,878,499	$19,744,419
Depot demand for P-3 items	4,522,221	4,522,221	4,522,221
Depot washout (14.44 percent)	23,302,342	23,302,342	23,302,342
Carcass loss (5.2 percent)	8,391,425	8,391,425	8,391,425
P-3 APU LECP material	1,845,936	1,845,936	1,845,936
P-3 APU LECP methodology	6,924,778	6,924,778	6,924,778
Total	**$53,949,416**	**$57,865,201**	**$64,731,121**
Adjustment to with DVD cost	Draft Report	June 8, 2000 changes	
Costs for P-3 APU (-2) retrofit kits	$3,906,278		
DLA material inventory costs	4,818,168		
"Other Quantitative Benefits"			
Depot washout/carcass loss		$4,100,000	
Transportation		3,000,000	
Engineering and support (Honeywell representatives)		5,600,000	
Organization and intermediate level consumables		2,100,000	
Technology insertion recoupment		3,000,000	
Technical publications avoidance		1,500,000	
Reallocation of staffing			
Fleet manhours		10,200,000	
NAVAIR technical representatives		5,300,000	
Subtotal	**$8,725,446**	**$34,800,000**	
Total		**$43,524,446**	

*Repair cost prices in the draft report were based on the low difference in Appendix D. The June 8, 2000 changes were based on midpoint figures between the low and high differences.

Table 3. Additional Costs for Total Logistics Support Contract

Description	Draft Report	June 8, 2000 changes $113.54 labor rate	June 8, 2000 changes $90.97 labor rate
Without DVD total costs (approved BCA costs)	$230,173,100	$230,173,100	$230,173,100
Adjustments to without DVD	(53,949,416)	(57,865,201)	(64,731,121)
Total	**$176,223,684**	**$172,307,899**	**$165,441,979**
With DVD total costs (approved BCA costs)	$216,189,900	$216,189,900	$216,189,900
Adjustments to with DVD	(8,724,446)	(43,524,446)	(43,524,446)
Total	**$207,465,454**	**$172,665,454**	**$172,665,454**
Additional Costs for DVD contract	**$31,241,770**	**$357,555**	**$7,223,475**

Repair Prices and Depot Demand for TLS Items

Repair Prices. The NADEP-CP FY 1999 repair prices used in the BCA were based on outdated production cost data from FYs 1995 and 1996. Repair prices are developed by the Naval Air Systems Command using prices calculated by the NADEP-CP. The prices are calculated (for budget purposes) for 2 years beyond the current year using actual repair costs 2 years prior to the current year. As a result, repair prices charged to customers are based on actual costs that are 3 to 4 years old. NADEP-CP equipment specialists agreed that prices did not represent actual costs, but stated they had to work within the system. NADEP-CP reasoned that while they profited some years because prices charged were higher than actual costs, in other years, prices were lower than actual costs. As a result, NADEP-CP concluded, that the highs and lows balanced out over a period of time. The method that the Navy uses to develop repair prices may be adequate for recovering costs when repairs are accomplished in-house (within the Navy), therefore, we agree that the highs and lows would likely balance out over several years. However, using repair prices based on outdated cost data to make long-term decisions on whether or not to contract out the repairs is not acceptable; because if the contract prices are based on repair prices that were too high, the contractor now profits, and prices will never balance out.

Updated Repair Costs. Component repair costs (based on cost data from the Fleet Equipment Production Reports for FY 1998 through first quarter of FY 2000) were $9 to $30.5 (midpoint $19.74) million or 6.8 to 23.2 percent lower than the FY 1999 prices used in the BCA. The FY 2000 NADEP-CP

composite labor rate of $90.97 was used to calculate labor costs (Appendix D). The low calculation ($9 million) for each component was based on all recorded labor and material costs divided by the number of items ready for issue for each component. By contrast, the high calculation ($30.5 million) used all labor and material costs divided by the number of items ready for issue plus in-process items and items awaiting parts. Consequently, the low calculation accounts for additional costs related to items that were not yet ready for issue. The high calculation accounts for all the items not ready for issue but not all the additional costs related to the unfinished repairs.

After the draft report was issued, NAVICP obtained a new $109.22 FY 2000 labor rate from NADEP-CP related directly to the APUs. We contacted the NADEP-CP comptroller and were informed that the FY 2000 labor rate for the highest priced cost center (cost center 944) working on APUs was $113.54. When the $113.54 labor rate was used, component repair costs were $1.36 to $24.40 (mid-point $12.88) million lower than the FY 1999 prices used in the BCA. We used the midpoints based on the composite labor rate of $90.97 and the cost center 944 labor rate of $113.54 as the range for our calculations in Tables 2 and 3.

The lower repair costs may have resulted, in part, from NADEP-CP's recent implementation of ISO 9000 quality system standards. NAVICP and PwC credited Honeywell with implementation of ISO 9000 under the terms of the TLS contract; however, NADEP-CP had been working under ISO 9000 standards since August 1996. The NADEP-CP Production Department, where the majority of the APU repairs are performed, began implementation under Phase II in February 1998 and was certified ISO 9000 compliant in November 1999. The FY 1999 NADEP-CP APU repair prices (based on FYs 1995 and 1996 actual costs) would not have begun to reflect the benefits of ISO 9000. It is likely that APU repair costs will continue to decrease as the improvements and benefits of ISO 9000 implementation are realized in the Production Department and throughout the depot, given the significant improvements that resulted from Phase I implementation. Accordingly, awarding a firm-fixed price contract to Honeywell for TLS while Honeywell enters into a cost-reimbursable contract with NADEP-CP is a questionable decision.

Repair Price Fluctuations. The PwC study showed that the repair costs in the without DVD portion of the BCA were understated by $6.6 million. The study used a 3-year average approach to calculate repair prices based on data from FYs 1998 through 2000 (which was based on actual repair cost data from FYs 1994 through 1997). The study states, "There should not be concern over the 4-year time span between the review of actual costs resulting in a fiscal year effective repair price, as repair price history over time does not show significant fluctuations." We disagree with the PwC conclusion and point out two of the highest value components with significant fluctuations in repair prices and differences between the most recent repair costs.

Figures 1 and 2 show the extreme price fluctuations of two critical parts for the F/A-18 and the P-3 APUs, respectively.

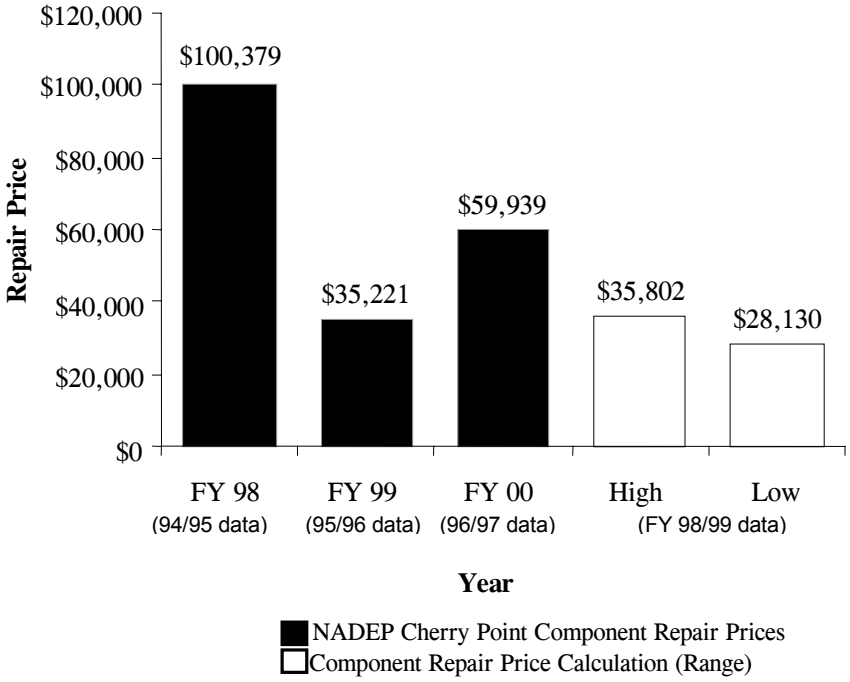

Figure 1. Comparison of Repair Costs for F/A-18 APU (NIIN 013478038)

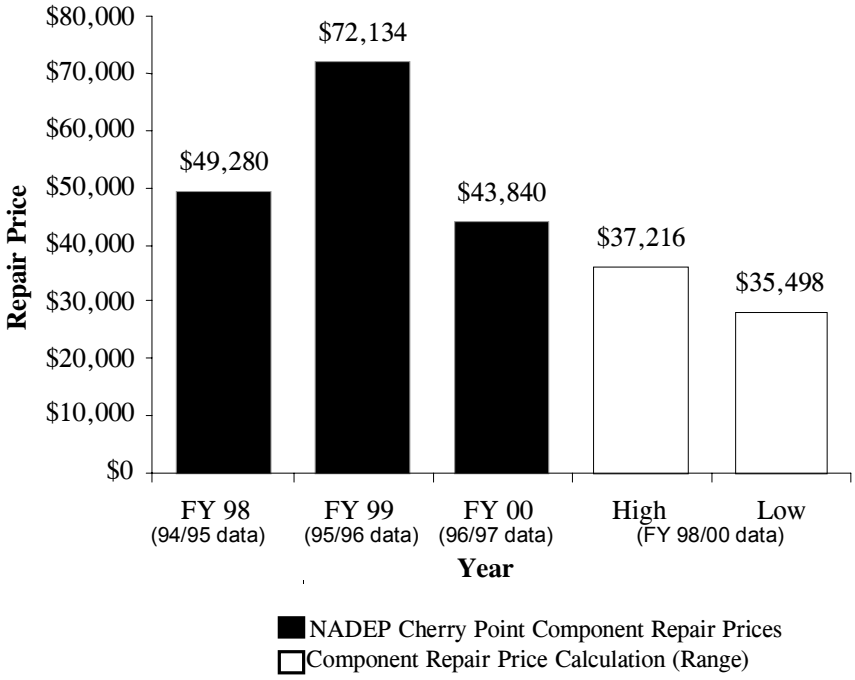

Figure 2. Comparison of Repair Costs for P-3 APU (NIIN 010732509)

NAVSUP should issue guidance requiring the use of the most recent cost data in all BCAs, at a minimum, for those items that represent key cost drivers.

Depot Demand for P-3 Items. Three of the P-3 reparable components included in the BCA without DVD costs were considered in the cost of the P-3 APUs. In essence, the costs for these items were counted twice in the without DVD costs. The components could be replaced only when repairs were performed at the depot and demands for the items represented depot demands. The depot would include the costs for these items in its material cost for the P-3 APUs. The separate costs for the turbine wheel and shaft assembly (NIIN 001463227), housing assembly (NIIN 001705126), and torus assembly (NIIN 009082497) components, totaling $4,522,221 were removed from the without DVD costs in our adjustments to the BCA.

Cost Recovery Rates

BCA Savings Related to Depot Washout and Carcass Loss. The BCA "without DVD" option included approximately $23.3 million for depot washout and $8.3 million for carcass loss to recover costs that were not justified. NAVICP recovers depot washout, carcass loss and other indirect costs by applying cost recovery rates (CRR) to the NADEP-CP item repair cost. NAVSUP, the organization responsible for developing the CRRs for Navy Working Capital Fund management, calculates the rates based on the aggregate depot washout and carcass loss cost that the inventory control point needs to recover for all reparable items that it manages. NAVSUP calculated a recovery rate of 14.44 percent for depot washout and 5.2 percent for carcass loss for NAVICP to recover costs for items that were beyond repair or lost in the supply system while in transit, respectively. New items are procured through the use of funds recovered for depot washout and carcass loss.

The PwC study calculated an 8.73 percent for depot washout and 4.64 percent for carcass loss using a 5-year average. The study concluded that the BCA was overstated by $14.1 and $7.5 million, respectively. We question the PwC methodology for including costs for depot washout when item managers for all four aircraft told them that the APU carcasses experienced zero attrition. Furthermore, we disagree with the PwC conclusion to use a 5-year average because the issue is not about the appropriate percentage for the BCA. These costs are not applicable because NAVICP did not procure any new parts for these items during FYs 1997 through the first quarter of FY 2000. In addition, costs for depot washout and carcass loss are already accounted for in APU material costs. For example, when the depot is repairing an APU, if a component is not repairable because of depot washout or carcass loss, the depot requisitions another component and the material cost is included in the APU repair cost. Further, since the contract has been awarded, the other reparable items not on the TLS contract will be charged with a higher cost recovery rate for depot washout and carcass loss to recover the necessary costs.

Table 4 shows the amounts for depot washout and carcass loss over a 10-year period for the four aircraft.

Table 4. Recovery Amounts for Depot Washout and Carcass Loss
(10-year period)

	Depot Washout	Carcass Loss	Total
C-2	$1,304,157	$469,641	$1,773,798
F/A-18	7,151,354	2,575,280	9,726,634
P-3	7,249,343	2,610,567	9,859,910
S-3	7,597,487	2,735,937	10,333,424
Total	**$23,302,341**	**$8,391,425**	**$31,693,766**

The Commander, Naval Supply Systems Command, issued "Revised FY 00 Variable Pricing Guidance," March 11, 1998, to establish necessary variable pricing guidance for FY 00 execution to ensure full cost recovery.

> Each DVD BCA package forwarded to NAVSUP for consideration shall include a copy of the associated contract and applicable Budget Project DVD sale base impact. SUP 01 will review all approved DVDs and assign a Cost Recovery Rate (CRR) by function. A cash neutral result is to be achieved in FY 00 by burdening non-DVD material prices, as required, to offset the loss of revenue associated with the reduced prices of DVD material. The preferential treatment given to DVD customers is expected to be short lived since long term reliance on DVD is anticipated. This will enable reductions in redundant areas of support, therefore, no longer requiring this cost allocation methodology and result in appropriate reductions in non-DVD prices as well.

The Commander, NAVSUP should direct that actual costs associated with depot washout and carcass loss cost recovery rates be quantified before being counted in BCA decisions for items placed on DVD contracts.

Commercial Item Burden. NAVICP applied a commercial burden to the item repair cost when repairs were predominantly commercial. The burden recovered costs related to government-furnished material, repair management, and items missing on induction or beyond economic repair by weapon system application. The FY 2000 prices included a commercial burden of 58.3 percent on one item for the C-2 APU and 37.4 percent on six items for the S-3 APU.

Transportation. The BCA calculation included an estimated savings in transportation costs of $5.8 million between the "without DVD and with DVD"

options. The 4.75 percent transportation cost for without DVD will decrease to 2.38 percent under the total logistics support contract. While this is a savings to NAVICP, we anticipate that the Navy will pass along this savings to its customers in the form of a lower CRR.

Impact on Cost Recovery Rate if TLS Contract is Awarded. The CRR applicable to the TLS contract will be reduced to 4.96 percent based on the BCA. The NAVICP customers paid FY 2000 repair prices that included additional surcharges averaging 30 percent to 80 percent of the NADEP-CP item repair cost, depending on the platform.

Table 5 shows the specific cost recovery rates applied by platform.

Table 5. NAVICP Cost Recovery Rates
(percent)

	Without DVD				With DVD
Description	C-2	F/A-18	P-3	S-3	
Depot washout	14.44	14.44	14.44	14.44	0.00
Cost recovery					
Carcass loss	5.20	5.20	5.20	5.20	0.00
NAVICP operations	2.52	2.52	2.52	2.52	2.52
Transportation	4.75	4.75	4.75	4.75	2.38
Packaging	1.70	1.70	1.70	1.70	0.00
Inflation	0.20	0.20	0.20	0.20	0.00
LECP recovery[1]	3.30	0.00	2.29	3.30	0.00
Commercial burden[2]	58.30	0.00	0.00	37.40	0.00
Cost Recovery Rate[3]	30.90	30.38	33.12	79.97	4.96

[1]Logistics Engineering Change Proposal (LECP) applied to all items across a particular weapon system.
[2]Commercial burden applied only when repairs were predominantly commercial.
[3]Represents a weighted average of all surcharges against total repair costs for each platform.

Transportation and NAVICP operations costs are the only applicable recovery rates acceptable under the TLS contract and need to relate to applicable cost savings identified in the BCA. The other recovery rates should no longer apply because, under the contract, Honeywell would bear the related costs. NAVSUP, in conjunction with NAVICP, needs to determine whether applying a cost recovery rate of about 4.96 percent to the TLS contract is sufficient to recover applicable costs without raising the recovery rates for items not on the

TLS contract. NAVICP also needs to identify any additional recovery rates applicable to the TLS contract. These costs should be included in a revised BCA.

Logistics Engineering Change Proposal for P-3 Auxiliary Power Units

P-3 APU Logistics Engineering Cost Proposal (LECP). NAVICP failed to consider alternatives for the P-3 LECP that provided more effective and less costly results and used the less effective P-3 LECP to support the BCA for the TLS contract. Further, the retrofit schedule used in the LECP is not attainable based on the modified contract delivery schedule. Also, the failure rates of the 95-3 APUs (items being repaired at the depot) do not coincide with the delivery schedule for the retrofit kits.

The P-3 LECP is designed to upgrade the 95-2 and 95-3 model APUs to the 95-10 model at a cost of about $8 million to the Navy. The upgrade includes retrofitting all 175 of the 95-3 APUs and 35 of the 95-2 APUs. Seventy-one 95-2 APUs are to be retrofit by Honeywell under the TLS contract. We estimated that it will cost Honeywell $3.9 million (71 x $55,018) to retrofit the remaining 95-2 model APUs and applied that amount as a cost savings to NAVICP on the "with DVD" option**.** During the audit, NAVICP indicated that a $673,000 contract was expected to be awarded to Honeywell for 50 turbine wheels (used only on 95-2 APUs). However, new turbine wheels (different part for 95-10 APUs) are included in the 95-2 retrofit kits. NAVICP should not provide any funds to Honeywell to procure 95-2 turbine wheels and should not provide any additional funds to Honeywell outside the TLS contract.

P-3 LECP APU Methodology. The P-3 LECP is based on upgrading 175 95-3 and 35 95-2 P-3 APUs to a 95-10 configuration. Seventy-one of the 95-2 APUs were not funded for upgrade. The unit upgrade costs were $32,000 for the 95-3 and $55,018 for the 95-2 APUs. The LECP used the same mean time between depot actions and repair costs for both the models. Unfortunately, no good method exists to calculate the difference in the mean time between depot actions because the 95-2 meter counts hours while the 95-3 meter counts starts. However, from FY 1998 through the first quarter of FY 1999, NADEP-CP repaired and issued almost three times as many 95-2 as 95-3 APUs (179 versus 62). In addition, the costs to repair the 95-2 APUs were significantly higher than the costs to repair the 95-3 APUs, $57,111 versus $37,216. We calculated that the Navy can save between $6.9 and $9.5 million over a 10-year period if 100 of the 95-2 APUs planned for future use are upgraded and the remaining funds are used to upgrade 95-3 APUs. Our $6.9 million calculation was based on 101 of the 272 P-3 aircraft in service having 95-3 APUs and our $9.5 million calculation was based on 128 of the 272 aircraft in service having 95-3 APUs. NAVICP needs to take the necessary action to modify the P-3 LECP contract to obtain additional 95-2 versus 95-3 APUs.

Retrofit Schedule. The delivery schedule for the 95-2 and 95-3 retrofit kits has slipped almost a year. The original schedule required delivery of the 95-2

retrofit kits at six per month starting in May 2000 with delivery of the 95-3 retrofit kits at three per month starting in June 2000. The last of the 95-3 retrofit kits was scheduled for delivery in March 2005. Further, at about 31 depot repairs per year for the 95-3 APU, it would take over 5.6 years to retrofit 175 units, so, attempting to accelerate the delivery schedule is of no value. However, the P-3 LECP is based on the last 40 95-3 retrofits being completed in 2002, which is not possible. NAVICP requested that NADEP-CP stockpile (for the LECP retrofit) 95-3 APUs sent back for depot repair and only repair the 95-2 APUs. It costs NADEP-CP significantly more to repair 95-2 versus 95-3 APUs and the reliability of the 95-2 APU is less. NAVICP must rewrite and resubmit the P-3 LECP to consider retrofitting 100 of the 95-2 APUs, use appropriate depot repair prices for the 95-2 and 95-3 APUs, and base the retrofit schedule on availability of APUs and the delivery schedule of the retrofit kits. In addition, NAVICP also must notify NADEP-CP to stop stockpiling 95-3 APUs.

P-3 LECP APU Material. The P-3 LECP included $7,525,630 of material in the retrofit kits to replace or modify material in the APUs, and the "without DVD" costs in the BCA gave no consideration for the use of this material. The retrofit kits are scheduled to be installed at the NADEP-CP as the APUs are repaired. We compared the LECP material with the P-3 95-2 and 95-3 APU bills of material and identified $1,845,936 of material on the current bills of material being replaced under the LECP. We believe the $1,845,936 should be adjusted from the without DVD costs because those parts will be supplied as part of the LECP.

Responsibility for Consumable Items

Consolidation of Inventory Control Points. On July 3, 1990, the Deputy Secretary of Defense approved the recommendation in Defense Management Report Decision 926, "Consolidation of Inventory Control Points," to transfer item management responsibility for approximately one million consumable items from the Services to the DLA. The report concludes that transferring the consumable items to DLA was both cost effective and desirable, and would produce an estimated recurring annual savings of between $45 to $49 million (FY 1989 dollars) beginning in FY 1995.

Item Manager for Consumable Items. We reviewed the bills of material for the four different APUs on the TLS contract and identified a total of 1,503 different national item identification numbers (NIINs). A total of 1,394 NIINs, or 92.8 percent were consumable items managed by DLA. DLA is implementing a number of new contracting and logistics support initiatives that are impacted by parts shifting from DLA management to contractor management under the TLS contract. Almost 18 percent (267 of 1,503) of the

items used to repair the APUs were already included on a DLA industrial prime vendor contract at NADEP-CP. About a third (11) of the items included on the DLA/Honeywell Rapid Improvement Team catalog contract were items included on the TLS contract.

As of December 31, 1999, the DLA Standard Automated Material Management System shows an annual demand for the items of about $16.4 million and inventory valued at about $24.5 million (inventory equals on-hand plus due-in amounts less backorder amounts).

Table 6 shows that DLA maintains significant inventory to support consumable items needed to repair aircraft APUs.

Table 6. DLA Manages the Majority of the Consumable Items Used to Repair Aircraft APUs

	APU Bill of Materials		Parts on IPV Contract		DLA (Dec 31, 1999)	
Item Manager	Number of NIINs	Percent	Number of NIINs	Percent	Inventory Value	Annual Demand
DISC	555	36.9	213	14.17	$2,682,221	$1,792,347
DSCC	362	24.1	0	0	4,599,519	3,132,321
DSCR	477	31.7	54	3.59	17,185,840	11,507,925
NAVICP-P	89	5.9	0	0	0	0
Other	20	1.3	0	0	0	0
Subtotal DLA	**1,394**	**92.8**	**267**	**17.76**	**$24,467,580**	**$16,432,593**
Total	**1,503**	**100**	**267**	**17.76**		

Shift In Procurement and Management Responsibility for Prime Customers. NAVICP did not adequately consider the impact of transferring the responsibility for procurement and management of consumable items from DLA to the TLS contractor. The consumable items included on the four APU bills of material were requisitioned by almost 4,000 different DoD Activity Address Codes (DoDAACs); however, NADEP-CP, the prime DLA customer, requisitioned almost 34 percent of the items (dollar value). Other Navy customers representing the intermediate and organizational levels also requisitioned large quantities of parts. Honeywell also requisitioned items as Government furnished material on repair contracts, while much of the Air Force material may shift to the Air Force corporate contract with Honeywell.

Serious questions must be addressed on the impact to the effectiveness of DLA in managing consumable items when its best customers (NADEP-CP) are given to contractors to support under these new contracting initiatives. Questions such as what happens to consumable item prices, and cost recovery rates when its

base (value of items) is significantly reduced and its prime customers are given to contractors for support. Also, who supports the thousands of other customers that need the same parts but only in small quantities.

The DLA needs to determine the impact on effectiveness, consumable item prices, and customer CRRs when changing consumable item support from the DLA to contractor support for selective prime customers and report on the impact.

Table 7 shows DLA customer requisitions in CY 1999.

Table 7. DLA Customer Requisition Amounts for CY 1999

Customer	No. of DoDAACs	Amount	Percent
NADEP-CP	1	$4,818,168	33.6
Other Navy	1,000	2,090,556	14.6
Kelly Air Force Base	1	1,880,988	13.1
Other Air Force	267	1,629,830	11.4
Foreign Military Sales	359	2,079,991	14.5
Honeywell	1	947,473	6.6
Other Contractors	112	350,709	2.5
Other Customers	2,248	523,337	3.7
Total	**3,989**	**$14,321,052**	**100.0**

Inventory Drawdown. If the TLS contract is to be awarded, NAVICP, DLA, and Honeywell must immediately start coordinating the inventory drawdown from the DLA. DLA must also stop procuring items to support the TLS contract APUs. We credited (Table 2) the TLS contract with an inventory reduction at DLA equal to the amount requisitioned by NADEP-CP during CY 1999 ($4,818,168). DLA was maintaining inventory totaling over $24.5 million related to consumable parts used to repair the APUs while the TLS contract assumes Honeywell can improve parts availability while maintaining inventory of only about $2 million. We provided both NAVICP and DLA with electronic files of the DLA inventory used to create Table 6. The TLS contract needs to address the complete inventory drawdown for consumable items used by NADEP-CP from DLA.

APU Availability

The TLS contract proposes that Honeywell maintain 90 percent availability of the reparable items. Based on our review, the FY 1999 availability for the majority of the reparable items is 90 percent or better. Meanwhile, the PwC study also concluded that the current availability averages 87 percent for the four APUs. For those reparable items with low availability, there were five items with availability under 70 percent because of the G-condition problems. A G-condition problem exists when a repair is incomplete because the "material requires additional parts or components to complete the end item prior to issue." The part with the most serious G-condition problem that is affecting the availability of the five reparable items is NIIN 011148612, a rotor. Honeywell manufactures the additional part that has caused the delays in repairs of the five items. The Defense Supply Center Richmond stated that the part is unavailable because Honeywell's production schedule could not meet the demand. As of March 22, 2000, there is a backorder of 75 rotors. Furthermore, other reparable items with low availability that were also manufactured by Honeywell experienced G-condition problems because demands surged and parts had extended administrative and production lead times. The proposed TLS contract provides for payment adjustments to Honeywell if the contractor does not meet the 90 percent availability. The payment adjustments range from $20,000 to $500,000 (1/10th of a percent to 2.5 percent) of the annual contract value per year. NAVICP needs to request that Honeywell explain how its production schedule can be improved to meet TLS contract demands while they were not improved to meet DLA demands. Figure 3 shows the availability of 55 reparable items for the S-3, C-2, P-3 and F/A-18 auxiliary power units. We did not include reparable items that did not have a demand in FY 99.

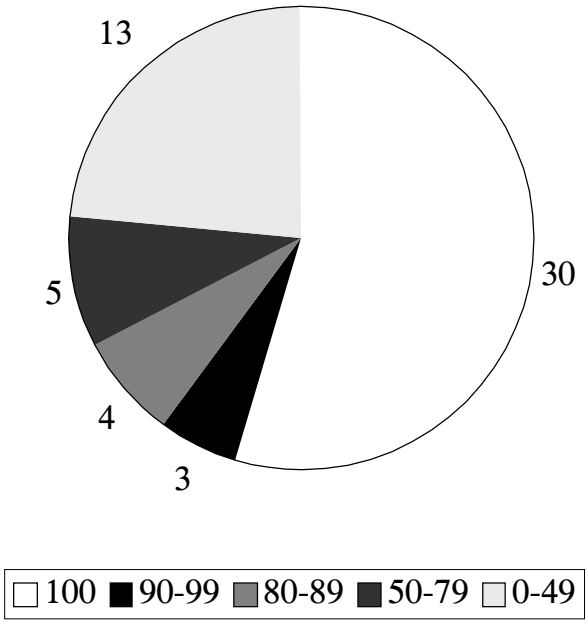

Figure 3. Auxiliary Power Unit Reparable Item Availability

Reliability Improvement of APU

Reliability Improvements from Technology Refreshment. NAVICP could not support the reliability improvement assumptions made in the BCA. The BCA relies on the assumption that Honeywell will guarantee improved reliability between 15 percent and 45 percent for the C-2, S-3, and F/A-18 APUs through technology refreshment (i.e., engineering improvements) initiated and funded by Honeywell. We did not include the reliability improvement for the P-3 APU since any reliability improvements are covered under the LECP. NAVICP established a metric to measure the mean flight hours between unscheduled APU removals (MFHBUR) at the organizational level to determine this improved reliability. The MFHBUR is calculated by dividing the total flight hours for each aircraft platform by the number of unscheduled APU removals at the organizational level. NAVICP obtained reliability data from the Naval Aviation Logistics Data Analysis System at Naval Air Systems Command (NAVAIR) to establish a baseline for each aircraft platform using data from August 1997 through February 1999. The baseline was then compared to the proposed improvement to MFHBUR (as a result of Honeywell's investment in technical refreshment) to determine the increase in reliability of the APUs.

To validate the baseline, we reviewed reliability data provided by NAVAIR from the recently implemented Logistics Management Decision Support System for calendar year 1999. The updated data (reliability summaries) showed that the MFHBUR for calendar year 1999 was significantly lower than the baseline cited in the BCA. Because of the significant difference, we requested additional data to show the supporting details of the reliability summaries. Once again, the detailed support differed significantly from the reliability summaries as previously provided for the same time frame. The MFHBUR from the detailed supporting data was significantly higher than the MFHBUR from the reliability summaries and was more in-line with the baseline used in the BCA.

The proposed TLS contract provides for payment adjustments (reductions) to Honeywell if the contractor does not meet the guaranteed reliability improvements. The payment adjustments range from $25,000 to $75,000 (1/10th to 4/10th of a percent) of the annual contract value per year by platform. However, given the difficulty NAVICP had providing support for the established baseline, we question its ability to accurately measure reliability increases/decreases for the APUs. Thus, the ability to determine whether Honeywell will meet its reliability improvements as guaranteed under the TLS contract is diminished by the inability to establish an accurate baseline. In addition, an "accurate" baseline will depend largely on the sensitivity of the data fields used in performing the system query and on the integrity of the information, as reported and entered into the system at the organizational level.

Table 8 shows the guarantee in reliability improvements for the three aircraft under the TLS contract and the new baseline established for CY 1999. The CY 1999 reliability data exceeds the baseline data in the TLS contract.

Table 8. CY 1999 APU Reliability Data Exceeds Contract Baseline

	BCA Baseline (MFHBUR)	Contract Reliability Improvement (Percent)	Contract Reliability Total MFHBUR	CY 1999 MFHBUR	CY 1999 Difference From BCA Baseline (Percent)
F/A-18	968	45	1400	999	4
S-3	418	25	525	474	12
C-2	464	15	535	575	20

NAVICP must establish a consistent methodology to measure any reliability increases/decreases for the APUs and base the TLS contract baseline on that methodology.

Technology Insertion. DoD routinely pays for technology insertion through independent research and development (IR&D). Public law encourages IR&D by permitting contractors to claim a portion of their IR&D costs as part of overhead in Government contracts. By reimbursing these costs, DoD encourages the industry to explore new technologies with potential application to military systems. IR&D projects are usually performed to improve existing DoD products, meet dual use demands, or meet what the industry perceives to be "potential" DoD requirements.

Honeywell reported IR&D costs for the improvement of the APUs since FY 1993, based on the information obtained from the Defense Technical Information Center database. The objectives and approaches as reported by Honeywell state:

> The overall goal for this project is to continue to improve APU technology in order to provide for increased operational reliability. The overall approach is to increase APU performance, reliability, maintainability, durability, and adaptability by applying advanced technology to engine component and accessories development.

NAVICP needs to include clauses in the TLS contract that prohibit Honeywell from including any costs associated with technology insertion related to the P-3, F/A-18, S-3, and C-2 APUs into any other Honeywell Independent Research and Development pools that will be allocated to any future Government contracts.

Delivery of P-3 Kits and Impact on Increased Reliability. According to the Naval Air Systems Command P-3 Accessory Change No. 1134, the scheduled delivery of the kits to retrofit the 95-3 to the 95-10 APU will not begin until

March 2001 following the test of the first prototype in August 2000. Thereafter, the remainder of the kits will continue to be delivered at a rate of three kits per month over 5 years. While the TLS contract guarantees that the APUs for the entire P-3 platform increase the mean flight hours between unscheduled removals to 2,580 in the first year of the contract and 3,500 in subsequent years, we question the feasibility of the increased reliability. Since it will take Honeywell 5 years to provide the kits to retrofit all of the 95-2 and the 95-3 APUs, it is not possible for the entire P-3 platform to realize immediate increases in reliability as suggested by the TLS contract.

Summary

The approved BCA is unreliable and should not be used as a basis for awarding the TLS contract. Accordingly, the contract should not be awarded until a BCA is prepared using sound reasoning and reliable data. Also, significant difficulties exist in developing, supporting, and testing economical and effective purchasing strategies. Various concurrent contracting initiatives affect each other and the impact on the different agencies and the overall impact on the DoD must be clearly addressed. Honeywell has a firm-fixed price contract based on flight hours per aircraft with NAVICP, under the terms of the TLS contract. Honeywell then has a cost reimbursable subcontract with NADEP-CP for the labor to repair the APUs while Honeywell supplies the materials. Under these two contracting arrangements, Honeywell could potentially earn significant profits, especially if the actual repair costs were overstated in the BCA or repair costs decrease while the flight hours and reliability increase.

Management Comments on the Finding and Audit Response

Although not required to comment, the Deputy Under Secretary of Defense (Acquisition Reform) provided the following comments on the Finding. For the full text of Acquisition Reform comments, see the Management Comments section of the report.

Acquisition Reform Comments on Innovative and Creative Procurement Practices. The Deputy Under Secretary commented that many of the recommendations made by the IG were based upon possible but unquantified scenarios of what could occur and that the IG was engaged in oversight practices that will, if unchecked, serve to thwart innovative and creative procurement practices. Further, that the report fails to recognize the positive aspects of innovative practices and that certainly, if these innovative practices are successfully applied, the taxpayer and warfighter would inevitably benefit.

Audit Response. The report made 2 recommendations to NAVSUP and 11 recommendations to NAVICP. Of the 13 recommendations, the Navy concurred with 10 of the recommendations in the report. The three remaining recommendations related to the P-3 LECP, executed in September 1998, were rendered moot with the award of the TLS contract. The IG will continue to support innovative and creative procurement practices that result in efficient and

economical program. However, the IG does have an oversight role to ensure that DoD resources are not wasted under the disguise of innovative practices. We will closely monitor the results of the TLS contract and keep Acquisition Reform apprised of its outcome.

Acquisition Reform Comments on Labor Rates. The Deputy Under Secretary commented that if rates and overheads could be segregated into specific cost centers where APU work is performed, then those rates should be used.

Audit Response. Based on discussions with the Navy after the draft report was issued, the final report was revised using the labor and overhead rate from the highest cost center working on the APUs. It was impossible to derive a rate applicable to the situation; however, our use of the highest cost center was the most conservative approach.

Acquisition Reform Comments on Prior Audit Coverage. The Deputy Under Secretary of Defense commented that IG, DoD, Report No. 98-085, "Joint Audit Report: Joint Contracting for Depot Maintenance of Secondary Items," March 4, 1998, was excluded from prior audit coverage. Further, the comments continued that this exclusion was significant, because many of the report's recommendations have been incorporated into the Navy's TLS contract.

Audit Response. We have included it in the final report. However, we fail to recognize the significance of the report in regard to the Navy TLS contract. The recommendations in the joint contracting report relate to "joint" contracting between the Services' contracting and logistics personnel, and DLA contract personnel. The TLS contract relates only to the Navy. Further, both DLA and the Air Force have separate initiatives underway chartered by the Acquisition Reform office that should have addressed the Navy's requirements.

Acquisition Reform Comments on Reducing the DoD Acquisition Workforce. The Deputy Under Secretary commented that the Navy should be recognized for trying to eliminate layers of management through streamlined processes while reducing the DoD acquisition and related workforce.

Audit Response. We see no evidence of where the TLS contract will eliminate any layers of management or help to reduce the DoD acquisition workforce, in fact, the contract creates additional layers. The TLS contract establishes a new contractor managed inventory at NADEP-CP to support the APUs in addition to the Navy and DLA inventories already supporting other systems. Also, as shown in Table 7, DLA is still responsible for procuring all the consumable items needed to repair the APUs for customers other than NADEP-CP.

Acquisition Reform Comments on Contractor Incentives. The Deputy Under Secretary commented that the report fails to mention the contractor incentives and the significance of those incentives to limit the Navy's risk.

Audit Response. During meetings with NAVICP, we questioned the significance of the TLS contract performance incentives. The TLS contract will be closely monitored to determine whether those performance incentives are sufficient.

Recommendations, Management Comments, and Audit Response

1. We recommend that the Commander Naval Supply Systems Command issue guidance that:

a. Directs the use of updated cost data in all business case analyses for those items that represent key cost drivers.

b. Directs that actual costs associated with depot washout and carcass loss recovery rates be quantified before being used in business case analysis decisions to support DVD contracts.

Navy Comments. The Navy partially concurred with Recommendation 1.a., stating it concurred, if the intent was to simply use the most current pricing data available. The Navy stated that constructing a "should cost" repair price would be labor intensive and speculative since the "should cost" repair price may not match charges NAVICP is eventually billed by the repair facility. The Navy concurred with Recommendation 1.b., stating actual cost data is more precise and that it is analyzing alternatives for capturing the true impact of depot washout and carcass loss factors.

Audit Response. The Navy comments are not responsive. Although the Navy partially concurred with Recommendation 1.a., using the current component repair prices based on actual cost data that is 3 to 4 years old is not adequate to support business case analyses decisions. At a minimum, the Navy needs to verify that component repair prices for the major cost drivers are in-line with current actual costs to repair the items. We request that the Navy reconsider its position on Recommendation 1.a. and provide additional comments in response to the final report. The Navy comments to Recommendation 1.b. were fully responsive.

2. We recommend that the Commander Naval Inventory Control Point Philadelphia:

a. Withhold the award of the total logistics support contract for aircraft auxiliary power units until a business case analysis is completed using reliable data and an appropriate methodology.

b. Determine whether the 4.96 percent or less cost recovery rate applicable to the auxiliary power unit reparable items is sufficient to recover Naval Inventory Control Point-Philadelphia costs without raising the recovery rates for items not on the total logistics support contract.

c. Identify any additional surcharges applicable to the total logistics support contract.

d. Withhold additional funds from Honeywell on the procurement of 95-2 turbine wheels outside the total logistics support contract.

e. Rewrite and resubmit the logistics engineering change proposal for the P-3 auxiliary power unit considering retrofitting 100 of the 95-2 units, use appropriate depot repair prices for the 95-2 and 95-3 units, and base the retrofit schedule on availability of units and the delivery schedule of the retrofit kits.

f. Modify the P-3 logistics engineering change proposal contract to obtain additional 95-2 retrofit kits versus 95-3 kits.

g. Direct the Naval Aviation Depot, Cherry Point to stop stockpiling 95-3 auxiliary power units.

h. Direct that the total logistics support contract address the complete inventory drawdown for consumable items used by the Naval Aviation Depot, Cherry Point.

i. Direct that an explanation be obtained from Honeywell on how its production schedule can be improved to meet demands under the total logistics services contract but cannot be improved to meet demands from the Defense Logistics Agency.

j. Direct that a consistent methodology be established to measure any reliability increases/decreases for the APUs and base the TLS contract APU reliability baseline on that methodology.

k. Direct that clauses in the total logistics support contract prohibit Honeywell from including any costs associated with technology insertion related to the P-3, F/A-18, S-3, and C-2 APUs into any other Honeywell Independent Research and Development pools that will be allocated to any future Government contracts.

Navy Comments. The Navy concurred with all recommendations except 2.e, 2.f., and 2.g., which related to the logistics engineering change proposal for the P-3 aircraft, stating that the engineering change was rendered moot with award of the total logistics support contract. The Navy concurred with Recommendation 2.a., stating it manually calculated rates and revised the business case analysis to show an overall benefit to the Navy of $32.6 million and that at a June 2, 2000 meeting with the DoD IG, a decision was made to award the contract. The Navy concurred with Recommendation 2.b. and 2.c., stating appropriate cost recovery rates would be used and any additional surcharges applicable to the total logistics support contract would be identified. The Navy concurred with Recommendation 2.d., stating there was no further need for the 95-2 turbine wheel. The Navy concurred with Recommendation 2.h., stating an inventory drawdown provision had been incorporated in the total

logistics support contract. The Navy concurred with Recommendation 2.i., stating Honeywell would place just-in-time delivery orders at a rate well within its production capacity. The Navy concurred with Recommendation 2.j., stating a consistent methodology was established to calculate reliability for the APUs and it was included within the terms and conditions of the total logistics support contract. The Navy concurred with Recommendation 2.k., stating that a clause was inserted into the contract directing Honeywell to exclude any costs associated with technology insertion related to the total logistics support contract APUs from its independent research and development cost pools.

Audit Response. The Navy comments are partially responsive. While we did not agree with the Navy's calculation of benefits relating to the total logistics support contract, the upper and lower bounds of risk associated with execution of the contract were identified. During the June 2, 2000 meeting, the Navy stated that even if risk associated with the total logistics support contract was at the upper bound, meaning that the contract would cost more than the current method of support, the risk was acceptable to the Navy. The Navy made the decision to award the contract not the IG and time will show if the decision was a wise one.

Acquisition Reform Comments. Although not required to comment, the Deputy Under Secretary of Defense (Acquisition Reform) provided comments on Recommendations 2.a., 2.d., and 2.k. The Deputy Under Secretary disagreed with Recommendation 2.a., stating NADEP-CP performed appropriate business case analyses and should be encouraged to award and begin this novel initiative. The Deputy Under Secretary disagreed with Recommendation 2.d., stating withholding of funds is a contractual action taken to address a deficiency in work performed by the contractor. The Deputy Under Secretary of Defense disagreed with Recommendation 2.k., stating Honeywell is required to allocate independent research and development costs over a base representing the total activity of that business unit. Further, that independent research and development costs do not include costs of effort required in performance of a contract.

Audit Response. We fail to understand why Acquisition Reform disagreed with Recommendations 2.a., 2.d., and 2.k, when the Navy concurred with each of the recommendations and agreed to take appropriate action. While we always appreciate receiving comments on draft reports from the Under Secretary of Defense for Acquisition, Technology, and Logistics, these comments merely illustrate that Acquisition Reform has been out of the loop and has chosen not be a prime player in this matter.

3. **We recommend that the Director, Defense Logistics Agency determine the impact on effectiveness, consumable item prices, and customer cost recovery rates of changing consumable item support from the Defense Logistics Agency to contractor support for selective prime customers before the total logistics support contract is awarded. The impact should be reported to DoD and the Services.**

Management Comments. The Defense Logistics Agency concurred with the recommendation stating that the overall impact to Agency's effectiveness, consumable item prices, and customer cost recovery rates for this one contract is negligible. However, the cumulative effective of the Services' future initiatives for contractor logistics support could adversely impact the Defense Logistics Agency if the agency is not included in the early planning and given the opportunity to sell off consumable inventory and adjust future requirements accordingly.

Appendix A. Audit Process

Scope and Methodology

Work Performed. We reviewed the BCA, statement of work, and terms and conditions for the proposed TLS contract with Honeywell for 76 reparable items. To assess the reasonableness of BCA-claimed cost savings, availability, and reliability improvements, we compared related supporting documentation to current data. Specifically, we obtained actual repair cost data for FY 1998 through January 2000 from NADEP-CP on selected APU items that were key cost drivers. We reviewed all commercial procurement contracts for APU reparable items that were awarded from FY 1997 through December 2000 to determine the applicability of carcass loss and depot washout costs to APU items. We also reviewed the methodology, cost savings, and proposed reliability increases associated with the P-3 LECP. We researched the cause of low availability for APU items where the inability to obtain required parts prevented repair completion. To establish a current baseline for measuring reliability increases, we obtained MFHBUR data for CY 1999 from NAVAIR. We also met with NAVICP contracting, budget, and logistics personnel, NAVSUP budget analysts responsible for the BCA template and cost recovery rates, NADEP-CP equipment specialists responsible for computing NADEP repair prices, and NAVAIR personnel responsible for developing the MFHBUR baseline for measuring reliability increases.

DoD-Wide Corporate Level Government Performance and Results Act (GPRA). In response to the GPRA, the Secretary of Defense annually establishes DoD-wide corporate level goals, subordinate performance goals, and performance measures. This report pertains to achievement of the following goal(s), subordinate performance goal(s), and performance measure(s):

- **FY 2000 DoD Corporate Level Goal 2:** Prepare now for an uncertain future by pursuing a focused modernization effort that maintains U.S. qualitative superiority in key warfighting capabilities. Transform the force by exploiting the Revolution in Military Affairs, and reengineer the Department to achieve a 21st century infrastructure. **(00-DoD-2)**

- **FY 2000 Subordinate Performance Goal 2.3:** Streamline the DoD infrastructure by redesigning the Department's support structure and pursuing business practice reforms. **(00-DoD-2.3) FY 2000 Performance Measure 2.3.1:** Percentage of the DoD Budget Spent on Infrastructure. **(00-DoD-2.3.1)**

- **FY 2000 Subordinate Performance Goal 2.4:** Meet combat forces' needs smarter and faster, with products and services that work better and cost less, by improving the efficiency of DoD acquisition processes. **(00-DoD-2.4) FY 2000 Performance Measure 2.4.6:** Reductions in the Acquisition Workforce (In percents). **(00-DoD-2.4.6).**

DoD Functional Area Reform Goals. Most major DoD functional areas have also established performance improvement reform objectives and goals. This report pertains to achievement of the following functional area objectives and goals.

> **Logistics Functional Area. Objective:** Streamline logistics infrastructure. **Goal:** Implement most successful business practices (resulting in reductions of minimally required inventory levels). **(LOG-3.1)**

Use of Computer-Processed Data. To achieve the audit objectives, we relied on computer-processed data from DLA and the Naval Inventory Control Point. We queried the DLA Standard Automated Material Management System to determine the number of APU-related consumable items that are managed by DLA. The computer-processed data were determined reliable based on results of recent spare parts audits at DLA. Nothing came to our attention as a result of specified procedures that caused us to doubt the reliability of the computer processed data.

Audit Type, Dates, and Standards. We performed this program audit from December 1999 through April 2000 in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD. The scope of the audit was limited in that we did not review the management control program.

Contacts During the Audit. We visited or contacted individuals within the DoD. Further details are available on request.

Appendix B. Prior Coverage

During the last 5 years, the General Accounting Office has issued two audit reports and the Inspector General, DoD, has issued seven audit reports discussing either contractor estimating systems or prices for spare parts in the acquisition reform environment.

General Accounting Office

General Accounting Office Report No. NSIAD-99-90, "DoD Pricing of Commercial Items Needs Continued Emphasis," June 1999.

General Accounting Office Report No. NSIAD-94-153, "Contract Pricing, DoD Management of Contractors with High Risk Cost-Estimating Systems," July 1994.

Inspector General, DoD

Inspector General, DoD, Report No. D-2000-099, "Procurement of the Propeller Blade Heaters for the C-130 and P-3 Aircraft," March 8,2000*

Inspector General, DoD, Report No. D-2000-098, "Spare Parts and Logistics Support Procured on a Virtual Prime Vendor Contract," March 8, 2000*

Inspector General, DoD, Report No. 99-218, "Sole-Source Noncommercial Spare Parts Orders On a Basic Ordering Agreement," July 27, 1999.*

Inspector General, DoD, Report No. 99-217, "Sole-Source Commercial Spare Parts Procured on a Requirements Type Contract," July 21, 1999.*

Inspector General, DoD, Report No. 99-026, "Commercial Spare Parts Purchased on a Corporate Contract," October 30, 1998.*

Inspector General, DoD, Report No. 98-088, "Sole-Source Prices for Commercial Catalog and Noncommercial Spare Parts," March 11, 1998.*

Inspector General, DoD, Report No. 98-085, "Joint Audit Report: Joint Contracting for Depot Maintenance of Secondary Items," March 4, 1998.

Inspector General, DoD, Report No. 98-064, "Commercial and Noncommercial Sole-Source Items Procured on Contract N000383-93-G-M111," February 6, 1998.*

*Only redacted versions of these reports will be available on the Internet at www.dodig.osd.mil/audit/reports. These reports relate to the series of reports discussed in the Executive Summary and elsewhere in this report.

Appendix C. Demands and Prices for Reparable Items on the Total Logistics Support Contract

C-2 Aircraft				Business Case Analysis			
						Total (10 years)	
Family Group	NIIN	Part No.	Description	FY 1998 Demands	FY 1999 Unit Prices	Demands	Price
MXSB-M	012168194	3800154-1	Power unit, gas turb	4	$33,325.60	40	$1,333,024
MXSB-M	012568378	123SCP6002-15	Power unit, gas turb	6	33,325.60	60	1,999,536
MXSB-H	013647323	3800154-1-6	Power unit, gas turb	12	33,325.60	120	3,999,072
H	012270014	2118220-1	Control unit, electr	7	642.00	70	44,940
H	012718681	109826-2	Valve, butterfly	3	1,992.00	30	59,760
H	013028594	3842061-2	Compressor rotor, ax	0	6,073.00	0	0
H	013028639	518954-1-1	Starter, motor	0		0	0
H	013140597	3882350-8	Fuel control assem	0	2,982.00	0	0
H	013163462	3862400-1	Gearbox assembly	2	19,224.00	20	384,480
H	012718852	126656-10-1	Actuator, electro – pn				0.00
DF7A-H	013360222	109826-2-3	Valve, butterfly				0.00
DF7A-M	013193111		Valve, assembly				0.00
C-2 Total				**34**		**340**	**$7,820,812**

F/A-18 Aircraft

Family Group	NIIN	Part No.	Description	FY 1998 Demands	FY 1999 Unit Prices	Business Case Analysis Total (10 years) Demands	Price
ADJA-M	011506998	109814-1-1	Valve assembly, surg	5	$2,448.00	50	$122,400
ADJA-M	011970574	109814-2-1	Valve assembly, surg	0		0	$0
ADJA-M	012630180	109814-1-1	Valve, control, autom	6	2,448.00	60	146,880
ADJA-H	013928098	109840-1-2	Valve, safety relief	18	2,448.00	180	440,640
AHWA-M	011136888	3882350-4-1	Fuel control assem	2	2,982.00	20	59,640
AHWA-H	012122930	382350-4-2	Fuel control assem	20	2,982.00	261	778,302
B83A-M	011471066	4100143-2	Motor, hydraulic	46	2,120.00	460	975,200
B83A-M	014328441	4100143-4	Motor, hydraulic	0	2,120.00	0	0
B83A-H	014328442		Motor, hydraulic	0	2,120.00	116	245,920
GQ2B-M	011190792	74A540010-1015	Power unit, gas turb	0		0	0
GQ2B-M	011507135	3800076-3-4	Power unit, gas turb	1	37,774.55	10	377,746
GQ2B-M	011507136	74A540010-1019	Power unit, gas turb	0		0	0
GQ2B-M	012539589	3800076-4-5	Power unit, gas turb	3	37,774.55	30	1,133,237
GQ2B-M	012572713	3800076-4-4	Engine, gas turbine	1	37,774.55	10	377,746
GQ2B-H	013478038	3800076-5	Power unit, gas turb	61	37,774.55	610	23,042,476
MF3A-M	011190746	3801000-9	Compressor, axial, tu	0		0	0
MF3A-M	011507073	3801000-11	Compressor, axial, tu	0		0	0
MF3A-H	012706069	3801000-12	Compressor, axial, tu	12	32,382.00	120	3,885,840
H	011148629	3862076-6	Gearbox, accessory d	17	19,225.00	170	3,268,250
H	011507085	126656-8-1	Cylinder assembly, a	71	3,003.12	913	2,741,849
H	011526034	2101554-6-1	Control unit assembly	16	2,146.57	160	343,451
H	011903045	3842061-1	Compressor rotor, ce	32	11,778.00	409	4,817,202
F/A-18 Total				**311**		**3,579**	**$42,756,777**

P-3 Aircraft

Family Group	NIIN	Part No.	Description	FY 1998 Demands	FY 1999 Unit Prices	Business Case Analysis Total (10 years) Demands	Price
BRSB-H	010349473	124536-31	Fuel control unit, t	117	$2,001.00	964.25	$1,929,464
BVCA-H	000679480	371976-15	Pump assembly, oil	5	1,718.00	41.25	70,868
E4YB-H	004205512	899155-5	Chamber, combustion	23	773.00	189.75	146,677
E4YB-M	009084361	899155-2	Chamber, combustion				
FQVA-M	003374818	152050-2	Cooler, lubricating	2	88.99	20.00	1,780
M14B-M	009089309	380258-1	Engine, gas turbine		47,210.00	35.00	1,652,350
M14B-M	009089309	380258-1	Engine, gas turbine	38	47,210.00	250.00	11,802,500
M14B-H	010732509	381250-1-1	Engine, gas turbine		47,210.00	175.00	8,261,750
M14B-H	010732509	381250-1-1	Engine, gas turbine	86	47,210.00	59.00	2,785,390
M14B-H	010732509	-10	Engine, gas turbine		47,210.00	180.00	8,497,800
H	001463227	696161-1	Wheel and shaft assy	65	6,640.00	536.25	3,560,700
H	001705126	379537-9	Housing assembly, di	13	2,621.00	107.25	281,102
H	006825367	75976-7	Rotating assy, fan	1	787.00	10.00	7,870
H	009030840	109382-5	Valve, shut-off	79	1,523.00	651.75	992,615
H	009066251	372697-10	Starter, engine, elec	52	2,403.00	520.00	1,249,560
H	009082497	379794-60	Torus assembly	25	3,299.00	206.25	680,419
H	009082535	695055-1	Switch assembly	52	1,093.00	520.00	568,360
H	010394351	976979-18	Housing, antifriction	0		0.00	0
H	010447730	698192-4	Impeller, compressor	1	1,320.00	4.75	6,270
H	012200386	3601193-3	Atomizer assembly	7	734.00	70.00	51,380
H	012200524	3602310-9	Fuel control, starting	28	2,582.00	133.00	343,406
H	012207435	109382-23-1	Valve, shut-off	18	1,476.00	180.00	265,680
H	012207436	3603617-1	Switch assembly, eng	25	1,250.00	250.00	312,500

P-3 Aircraft cont'd

Family Group	NIIN	Part No.	Description	FY 1998 Demands	FY 1999 Unit Prices	Business Case Analysis Total (10 years) Demands	Price
H	012212955	3605384-3	Liner, Combustion	7	2,833.00	33.25	94,197
H	012212956	371976-24	Pump, Rotary	2	2,208.00	20.00	44,160
H	012213247	3605812-18	Starter, Engine, Elec	32	1,979.00	320.00	633,280
H	012260584	695655-4	Accessory Assembly	3	3,194.00	14.25	45,515
H	012260637	695321-2	Housing, Centrifugal	1	1,122.42	4.75	5,331
H	012286363	968959-6	Torus Assembly, Turb	0		0.00	0
H	012688184	698195-4	Housing, Assembly, Di	0		0.00	0
P-3 Total				**682**		**5,496**	**$44,290,924**
S-3 Aircraft							
B83A-M	011471066	4100143-2	Motor, hydraulic				$0
B83A-M	014328441		Motor, hydraulic				0
B83A-H	014328442		Motor, hydraulic				0
CLCB-H	014374059	2117960-3	Electrical control unit	37	$1,221.23	370	451,855
CLCB-M	013098244		Control unit outlin	50	1,221.23	500	610,615
DF7A-H	013360222	109826-2-3	Valve, butterfly	14	1,386.00	140	194,040
DF7A-M	013193111		Valve, butterfly	12	1,386.00	120	166,320
EQBA-H	014119602	3800152-4-2	Engine, gas turbine	54	49,712.11	540	26,844,539
EQBA-M	012718891	3800152-3-1	Engine, gas turbine	31	49,712.11	310	15,410,754
H	012718787	3840261-3	Impeller group	20	1,869.00	200	373,800
H	012718794	3862300-2	Gearbox assembly	0		0	0
H	014113398	3862300-5	Gearbox assembly				

S-3 Aircraft cont'd

Family Group	NIIN	Part No.	Description	FY 1998 Demands	FY 1999 Unit Prices	Business Case Analysis Total (10 years) Demands	Price
H	012718799	3880370-4	Lubrication assembly	0		0	0
H	012718850	160250-1	Cooler, lubricating	0		0	0
H	012718852	126656-10-1	Actuator, electro – pn	20	4,607.00	200	921,400
H	012727850	3882350-9	Fuel control, assemb	15	3,437.00	150	515,550
H	014117051	2704466-2	Generator, alternating	6	1,200.00	60	72,000
H	014172170	3880370-5	Oil Pump assy, engi	0		0	0
H	012992031		Valve, regulating te	0		0	0
H	013091368		Fan, vaneaxial	0		0	0
S-3 Total				**259**		**2,590**	**$45,560,874**
Total							**$140,429,386**

Appendix D. Business Case Analysis and Actual Cost Comparison

	Business Case Analysis				Calculations Based on Actual Costs 1998-2000						
	Demands		FY 1999		Review Items	High		Low		Difference	
NIIN	FY 1998	Total	Unit Price	Total Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Low	High
C-2											
012168194	4	40	$33,325.60	$1,333,024	$1,333,024	$45,965	$1,838,600	$32,175	$1,287,000	-$505,576	$46,024
012568378	6	60	33,325.60	1,999,536	1,999,536	35,712	2,142,720	26,188	1,571,280	-143,184	428,256
013647323	12	120	33,325.60	3,999,072	3,999,072	23,203	2,784,360	19,170	2,300,400	1,214,712	1,698,672
012270014	7	70	642.00	44,940							
012718681	3	30	1,992.00	59,760							
013028594	0	0	6,073.00	0							
013028639	0	0		0							
013140597	0	0	2,982.00	0							
013163462	2	20	19,224.00	384,480							
012718852											
013360222											
013193111											
Total C-2				**$7,820,812**	**$7,331,632**		**$6,765,680**		**$5,214,480.**	**$565,952**	**$2,117,152**
										7.72%	28.88%
F/A-18											
011506998	5	50	$2,448.00	$122,400							
011970574	0	0		0							
012630180	6	60	2,448.00	146,880							
013928098	18	180	2,448.00	440,640	440,640	$995	$179,100	$928	$167,040	$261,540	$273,600
011136888	2	20	2,982.00	59,640	59,640	2,900	58,000	2,900	58,000	1,640	1,640
012122930	20	261	2,982.00	778,302	778,302	1,984	517,824	1,984	517,824	260,478	260,478

	Business Case Analysis					Calculations Based on Actual Costs 1998-2000					
	Demands		FY 1999		Review Items	High		Low		Difference	
NIIN	FY 1998	Total	Unit Price	Total Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Low	High
F/A-18											
011471066	46	460	$2,120.00	$975,200	$975,200	$2,616	$1,203,360	$2,128	$978,880	-228,160	-$3,680
014328441	0	0	2,120.00	0							
014328442	0	116	2,120.00	245,920	245,920	9,394	1,089,704	2,348	272,368	-843,784	-26,448
011190792	0	0		0							
011507135	1	10	37,774.55	377,746	377,746	31,725	317,250	23,793	237,930	60,496	139,816
011507136	0	0		0							
012539589	3	30	37,774.55	1,133,237	1,133,237	23,469	704,070	23,469	704,070	429,167	429,167
012572713	1	10	37,774.55	377,746							
013478038	61	610	37,774.55	23,042,476	23,042,476	35,802	21,839,220	28,130	17,159,300	1,203,256	5,883,176
011190746	0	0		0							
011507073	0	0		0							
012706069	12	120	32,382.00	3,885,840	3,885,840	20,613	2,473,560	14,645	1,757,400	1,412,280	2,128,440
011148629	17	170	19,225.00	3,268,250	3,268,250	2,743	466,310	2,228	378,760	2,801,940	2,889,490
011507085	71	913	3,003.12	2,741,849	2,741,849	1,914	1,747,482	1,859	1,697,267	994,367	1,044,582
011526034	16	160	2,146.57	343,451							
011903045	32	409	11,778.00	4,817,202	4,817,202	12,835	5,249,515	6,418	2,624,962	-432,313	2,192,240
Total F/A-18				**$42,756,777**	**$41,766,300**		**$35,845,395**		**$26,553,801**	**$5,920,905**	**$15,212,499**
										14.18%	36.42%
P-3											
010349473	117	964.25	$2,001.00	$1,929,464	$1,929,464	$1,782	$1,718,294	$1,774	$1,710,580	$211,171	$218,885
000679480	5	41.25	1,718.00	70,868							
004205512	23	189.75	773.00	146,677							
009084361											
003374818	2	20.00	88.99	1,780							
009089309		35.00	47,210.00	1,652,350	1,652,350	57,111	1,998,885	45,985	1,609,475	-346,535	42,875
009089309	38	250.00	47,210.00	11,802,500	11,802,500	57,111	14,277,750	45,985	11,496,250	-2,475,250	306,250

	Business Case Analysis					Calculations Based on Actual Costs 1998-2000					
	Demands		FY 1999		Review Items	High		Low		Difference	
NIIN	FY 1998	Total	Unit Price	Total Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Low	High
P-3											
010732509		175.00	$47,210.00	$8,261,750	$8,261,750	$37,216	$6,512,800	$35,498	$6,212,150	$1,748,950	$2,049,600
010732509	86	59.00	47,210.00	2,785,390	2,785,390	37,216	2,195,744	35,498	2,094,382	589,646	691,008
010732509		180.00	47,210.00	8,497,800	8,497,800	37,216	6,698,880	35,498	6,389,640	1,798,920	$,108,160
001463227	65	536.25	6,640.00	3,560,700		Cost of turbine wheel included in engine cost					
001705126	13	107.25	2,621.00	281,102		Cost of housing assembly included in engine cost					
006825367	1	10.00	787.00	7,870							
009030840	79	651.75	1,523.00	992,615	992,615	1,779	1,159,463	1,767	1,151,642	-166,848	-159,027
009066251	52	520.00	2,403.00	1,249,560	1,249,560	1,924	1,000,480	1,807	939,640	249,080	309,920
009082497	25	206.25	3,299.00	680,419		Cost of torus assembly included in engine cost					
009082535	52	520.00	1,093.00	568,360	568,360	1,297	674,440	1,269	659,880	-106,080	-91,520
010394351	0	0.00		0							
010447730	1	4.75	1,320.00	6,270							
012200386	7	70.00	734.00	51,380							
012200524	28	133.00	2,582.00	343,406							
012207435	18	180.00	1,476.00	265,680							
012207436	25	250.00	1,250.00	312,500							
012212955	7	33.25	2,833.00	94,197							
012212956	2	20.00	2,208.00	44,160							
012213247	32	320.00	1,979.00	633,280	633,280	1,883	602,560	1,856	593,920	30,720	39,360
012260584	3	14.25	3,194.00	45,515							
012260637	1	4.75	1,122.42	5,331							
012286363	0	0.00		0							
012688184	0	0.00		0							
Total P-3				**$44,290,924**	**$38,373,070**		**$36,839,296**		**$32,857,559**	**$1,533,774**	**$5,515,511**
										4.00%	**14.37%**

	Business Case Analysis				Calculations Based on Actual Costs 1998-2000						
	Demands		FY 1999		Review Items	High		Low		Difference	
NIIN	FY 1998	Total	Unit Price	Total Price	Total Price	Unit Price	Total Price	Unit Price	Total Price	Low	High
S-3											
011471066											
014328441											
014328442											
014374059	37	370	$1,221.23	$451,855							
013098244	50	500	1,221.23	610,615							
013360222	14	140	1,386.00	194,040							
013193111	12	120	1,386.00	166,320							
014119602	54	540	49,712.11	26,844,539	$26,844,539	$50,447	$27,241,380	$42,732	$23,075,280	-$396,841	$3,769,259
012718891	31	310	49,712.11	15,410,754	15,410,754	40,408	12,526,480	36,650	11,361,500	2,884,274	4,049,254
012718787	20	200	1,869.00	373,800	373,800	13,251	2,650,200	6,212	1,242,400	-2,276,400	-868,600
012718794	0	0		0							
014113398											
012718799	0	0		0							
012718850	0	0		0							
012718852	20	200	4,607.00	921,400	921,400	1,947	389,400	1,947	389,400	532,000	532,000
012727850	15	150	3,437.00	515,550	515,550	2,110	316,500	2,110	316,500	199,050	199,050
014117051	6	60	1,200.00	72,000							
014172170	0	0		0							
012992031	0	0		0							
013091368	0	0		0							
Total S-3				**$45,560,874**	**$44,066,044**		**$43,123,960**		**$36,385,080**	**$942,083**	**$7,680,964**
										2.14%	**17.43%**
				$140,429,386	**$131,537,045**		**$122,574,331**		**$101,010,920**	**$8,962,714**	**$30,526,125**
							-6.81%		**-23.21%**	**6.81%**	**23.21%**

Appendix E. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition, Technology, and Logistics
    Deputy Under Secretary of Defense (Acquisition Reform)
    Deputy Under Secretary of Defense (Logistics)
    Director, Defense Logistics Studies Information Exchange
    Director, Defense Procurement
Under Secretary of Defense (Comptroller)
    Deputy Chief Financial Officer
    Deputy Comptroller (Program/Budget)
Assistant Secretary of Defense (Public Affairs)

Department of the Army

Auditor General, Department of the Army

Department of the Navy

Assistant Secretary of the Navy (Research Development and Acquisition)
Naval Inspector General
Auditor General, Department of the Navy
Commander, Naval Air Systems Command
    Commanding Officer, Naval Aviation Depot, Cherry Point
Commander, Naval Supply Systems Command
    Commander, Naval Inventory Control Point

Department of the Air Force

Assistant Secretary of the Air Force (Acquisition)
Assistant Secretary of the Air Force (Financial Management and Comptroller)
Auditor General, Department of the Air Force

Other Defense Organizations

Director, Defense Contract Audit Agency
Director, Defense Logistics Agency

Other Defense Organizations (cont'd)

Commander, Defense Supply Center Columbus
Commander, Defense Supply Center Richmond
Commander, Defense Industrial Supply Center Philadelphia
Commander, Defense Contract Management Agency
Director, National Security Agency
Inspector General, National Security Agency
Inspector General, Defense Intelligence Agency

Non-Defense Federal Organizations

Office of Management and Budget
Technical Information Center, National Security and International Affairs Division, General Accounting Office
Office of Federal Procurement Policy

Congressional Committees and Subcommittees, Chairman and Ranking Minority Member

Senate Committee on Appropriations
Senate Subcommittee on Defense, Committee on Appropriations
Senate Committee on Armed Services
Senate Committee on Governmental Affairs
House Committee on Appropriations
House Subcommittee on Defense, Committee on Appropriations
House Committee on Armed Services
House Committee on Government Reform
House Subcommittee on Government Management, Information, and Technology, Committee on Government Reform
House Subcommittee on National Security, Veterans Affairs, and International Relations, Committee on Government Reform

Department of Navy Comments

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
RESEARCH, DEVELOPMENT AND ACQUISITION
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

JUL 14 2000

MEMORANDUM FOR DEPARTMENT OF DEFENSE ASSISTANT INSPECTOR GENERAL FOR AUDITING

SUBJECT: Draft Department of Defense Inspector General (DODIG) Audit Report on Commercial Contract for Total Logistics Support (TLS) of Aircraft Auxiliary Power Units (Project NO. D2000CF-0061) (formerly Project NO. 0CF-0122) - ACTION MEMORANDUM

Reference: Your memo of 12 May 00

In response to your referenced memorandum and as final follow-up to the June 2, 2000, meeting co-chaired by the DoDIG Assistant Inspector General for Auditing, Mr. Robert Lieberman, and the Commander, NAVICP Philadelphia, RADM Michael Finley, comments on the subject draft report are provided in Attachment 1.

After detailed discussion on June 2, 2000, regarding the business case for the TLS contract and the findings of the DoDIG, it was decided that, with DoDIG concurrence, the contract could proceed to award. This decision was based on recognition by both parties that the audit process defined the upper and lower bounds of risk associated with execution of the contract. The contract was subsequently awarded on June 8, 2000.

My point of contact for this matter is Mr. Guy Storm, NAVSUPSYSCOM (SUP 4B2C), 717-605-7022.

Paul A. Schneider
Acting Assistant Secretary
of the Navy (Research,
Development and Acquisition)

Attachment:
1. Department of the Navy Comments

cc:
NAVINSGEN-4
NAVSUP 91F

DEPARTMENT OF THE NAVY COMMENTS
to
AIG(A) DRAFT REPORT OF 12 MAY 2000
on
COMMERCIAL CONTRACT FOR TOTAL LOGISTICS SUPPORT (TLS) OF
AIRCRAFT AUXILIARY POWER UNITS (APUs)
(PROJECT NO. D2000CF-0061 [FORMERLY OCF-0122])

Finding: TLS contract for Aircraft APUs.

The Naval Inventory Control Point (NAVICP) based its decision to award a contract for TLS of C-2, F/A-18, P-3 and S-3 aircraft APUs on a Business Case Analysis (BCA) that used questionable data and judgements. This occurred because the BCA methodology used to support the contract award:

a. used approved Navy component repair prices that were based on outdated cost data and included depot demands for items that were not appropriate,

Department of the Navy comment: Concur. The BCA has been revised.

b. credited savings associated with NAVICP cost recovery rates (CRRs) for depot washout and carcass loss that were not justified,

Department of the Navy comment: Concur. The BCA has been revised.

c. failed to consider alternatives for the P-3 Logistics Engineering Change Proposal (LECP) that provided more effective and less costly results and failed to fully account for P-3 retrofits in the BCA, and

Department of the Navy comment: Do not concur. NAVICP considered other alternatives. The award was based on a business decision to modify the maximum number of older APUs to the new configuration given available funding.

d. did not adequately consider the impact of transferring the responsibility for procurement and management of consumable items from the Defense Logistics Agency (DLA) for selective prime customers to the TLS contractor.

Department of the Navy comment: Do not concur. The primary risk to DLA is in selling inventory unique to TLS work to be performed by the contractor. NAVICP mitigated this risk by incorporating a drawdown provision in the TLS contract to ensure DLA assets are utilized. It is incumbent upon DLA to rightsize their infrastructure to accommodate changes in sales as a result of the TLS and other actions.

Attachment 1

In addition, other proposed TLS contract benefits related to improved parts availability and improved APU reliability remain questionable. As a result of questioned costs and other adjustments to the BCA, the TLS contract could cost the Navy an additional $31 million (conservative estimate) rather than saving $13.98 million over the 10-year contract period. Also, award of the contract would adversely impact the effectiveness of DLA to manage consumable items.

Department of the Navy comment: On 2 June 2000, a meeting was convened between NAVICP personnel and representatives of the DoDIG audit team. After detailed discussion regarding the business case for the TLS contract and the findings of the Inspector General, it was decided that, with DODIG concurrence, the contract could proceed to award. This decision was based on a recognition by both parties that the audit process had defined the upper and lower bounds of risk associated with execution of the contract.

Thirteen total recommendations were cited in the report; two directed to NAVSUP and eleven directed to NAVICP. Of the eleven recommendations directed to NAVICP-P and cited in the report, NAVICP concurs with eight. The three remaining recommendations address the P-3 APU LECP, executed in September 1998. As noted during our 2 June meeting, changes to the execution of the LECP are rendered moot with the award of the TLS contract.

Recommendations

1. We recommend that the Commander, Naval Supply Systems Command (NAVSUP) issue guidance that:

a. Directs the use of updated cost data in all BCAs for those items that represent key cost drivers.

Department of the Navy comment: Partially concur. Concur if the intent is simply to use the most current pricing data available; that is current NAVSUP policy. Nonconcur if the intent is for NAVICP to replicate the audit team's approach which used recent repair action costs to manually construct a "should cost" repair price. This would be labor intensive. It would also be speculative since the "should cost" repair price may or may not match charges NAVICP is eventually billed by the repair facility.

b. Directs that actual costs associated with depot washout and carcass loss recovery rates be quantified before being used in BCA decisions to support Direct Vendor Delivery (DVD) contracts.

Department of the Navy comment: Concur. Actual cost data is more precise, but it is not readily available for most systems without significant manual intervention. We are analyzing alternatives for capturing the true impact of depot washout and carcass loss factors, as well as all other costs.

2. We recommend that the Commander, NAVICP:

a. Withhold the award of the TLS contract for aircraft APUs until a BCA is completed using reliable data and an appropriate methodology.

Department of the Navy comment: Concur. NAVICP manually calculated these rates and revised the BCA to reflect actual depot washout and carcass loss rates. Results of this analysis show a $4.9M benefit to the Navy Working Capital Fund and a $32.6M overall benefit to the Navy. At the 2 June 2000 meeting between NAVICP and DODIG, it was decided, with DODIG concurrence, the contract could proceed to award.

b. Determine whether the 4.96 percent or less CRR applicable to the APU reparable items is sufficient to recover NAVICP costs without raising the recovery rates for items not on the TLS contract.

Department of the Navy Comment: Concur. Assistant Secretary of the Navy (Financial Management and Comptroller)(FMB) and NAVSUP policy mandate the aggregate recovery of all costs in the pricing process. NAVICP incorporates the CRRs and Annual Price Change targets provided by NAVSUP into the annual pricing process. Costs are recovered across the entire sales base and not on an item by item level. The discrete cost elements of the CRR do not vary whether items are supported under a TLS approach or not. NAVICP will continue to apply NAVSUP rates in the out-years rather than applying separately calculated CRRs for the items covered by this initiative.

c. Identify any additional surcharges applicable to the TLS contract.

Department of the Navy comment: Concur. Costs in the BCA are representative of costs to be incurred on this contract. Items covered by this contract will be reviewed as part of the annual price update process to ensure all costs are identified.

d. Withhold additional funds from Honeywell on the procurement of 95-2 turbine wheels outside the TLS contract.

Department of the Navy comment: Concur. Since 95-2 turbine wheels are applicable only to the -2 APU units, NAVICP has no further need for these items under TLS.

e. Rewrite and resubmit the LECP for the P-3 APU considering retrofitting 100 of the 95-2 units, use appropriate depot repair prices for the 95-2 and 95-3 units, and base the retrofit schedule on availability of units and the delivery schedule of the retrofit kits.

Department of the Navy comment: Do not concur. The NAVICP award was based on a business decision to modify the maximum number of APUs to the -10 configuration with available funding. Since the kits to modify 95-2 APUs to a 95-10 configuration are 70 percent more expensive than the 95-3 kits, NAVICP decided to purchase kits for all 95-3s and 35 of the 95-2s.

Additional Comments: NAVICP briefed DODIG/Mr. Lieberman on business reasons for the APU contract award. DODIG has agreed with business logic and, as a result, findings 2e, 2f and 2g are rendered moot upon execution of the contract.

f. Modify the P-3 LECP contract to obtain additional 95-2 retrofit kits versus 95-3 kits.

Department of the Navy comment: Do not concur. Refer to comments listed under 2e.

g. Direct the Naval Aviation Depot (NADEP), Cherry Point to stop stockpiling 95-3 APUs.

Department of the Navy comment: Do not concur. The 95-3 APUs are being held at the depot so that once the NAVAIR Technical Directive is issued authorizing kit installation, these APUs can be modified to the 95-10 configuration. This strategy avoids a potential carcass constraint situation and allows for the fastest possible upgrade schedule. Refer to comments listed under 2e for additional details.

h. Direct that the TLS contract address the complete inventory drawdown for consumable items used by the NADEP, Cherry Point.

Department of the Navy comment: Concur. A drawdown provision has been incorporated into the TLS contract. This is standard NAVICP business practice for DVD contracts and contractor furnished material arrangements.

i. Direct that an explanation be obtained from Honeywell on how its production schedule can be improved to meet demands under the TLS contract but cannot be improved to meet demands from the DLA.

Department of the Navy comment: Concur. NAVICP posed the question to Honeywell. Honeywell's response noted DLA's reliance on an economic order quantity model that favors low piece part price over best value. This generally results in large quantity orders placed for several year's worth of demand. Under TLS, Honeywell will place smaller, just-in-time delivery orders at a rate that is well within production capacity. An example of how well this integrated material management process works is the APU repair contract for the AH-64. Under this

Contractor Depot Capacity contract, Honeywell delivered repaired APUs to the Army 100 percent on time for the entire contract term of 5 years.

j. Direct that a consistent methodology be established to measure any reliability increases/decreases for the APUs and base the TLS contract APU reliability baseline on that methodology.

Department of the Navy comment: Concur. NAVICP has established a consistent methodology and it was included within the terms and conditions of the TLS contract.

k. Direct that clauses in the TLS contract prohibit Honeywell from including any costs associated with technology insertion related to the P-3, F/A-18, S-3, and C-2 APUs into any other Honeywell independent Research and Development pools that will be located to any future Government contracts.

Department of the Navy comment: Concur. NAVICP has inserted a contract clause directing Honeywell to comply with FAR 31.205-18 and exclude all costs required in the performance of this contract from its IR&D cost pools that will be allocated to any future Government contracts.

3. We recommend that the Director, DLA determine the impact on effectiveness, consumable item prices, and customer CRRs of changing consumable item support from DLA to contractor support for selective prime customers before the TLS contract is awarded. The impact should be reported to DOD and the Services.

Department of the Navy comment: Defer to the Director, DLA.

Defense Logistics Agency Comments

DEFENSE LOGISTICS AGENCY
HEADQUARTERS
8725 JOHN J. KINGMAN ROAD, SUITE 2533
FORT BELVOIR, VIRGINIA 22060-6221

IN REPLY
REFER TO
J-3 (C. MANN/767-2572)

JUL 28 2000

MEMORANDUM FOR DDAI

SUBJECT: Commercial Contract for Total Logistics Support of Aircraft Auxiliary Power Units, Project No. 0CF-0122

As requested in your memorandum dated May 17, 2000, attached are J-3's updated comments on the subject report.

For WILLIAM J. KENNY
Executive Director
Logistics Policy and
Acquisition Management

Attachment

Subject: Commercial Contract for Total Logistics Support of Aircraft Auxiliary Power Units, Project No. OCF-0122

Recommendation No. 3: The DoD-IG recommends that the Director, Defense Logistics Agency determine the impact on effectiveness, consumable item prices, and customer cost recovery rates of changing consumable item support from the Defense Logistics Agency to contractor support for selective prime customers before the total logistics support contract is awarded. The impact should be reported to DoD and the Services.

DLA Comments: Concur.

DLA will determine the impact of changing consumable item support for this Aircraft Auxiliary Power Unit from DLA to a contractor as part of normal business operations and coordination with the Navy. Information regarding the impact will be shared with the Navy as part of coordinated working processes.

The impact on overall DLA effectiveness, consumable item prices and customer cost recovery rates for this one Navy Aircraft Auxiliary Power Units (APU) contract is negligible. However, the cumulative effect of the Services' future, multiple weapon system Contractor Logistics Support (CLS) initiatives could adversely impact the DLA business base, consumable item prices and cost recovery rates if DLA is not included in the early planning and given the opportunity to sell off the consumable inventory unique to the weapon system, to stop buying replacement inventory unique to the weapon system at the earliest opportunity, and to adjust future requirements for common consumable items downward once the CLS contractor is established.

For this particular APU contract, the Defense Supply Center Richmond, as the lead DLA center for aviation weapon system support, will take the lead for DLA in working with the NAVICP and NADEP Cherry Point to identify the number of unique consumable items and associated inventory for Navy to purchase. DLA, in conjunction with NAVICP and NADEP Cherry Point will attempt to determine what their future requirements are for common consumables covered by the APU contract, versus those common consumables to be supplied by the contractor for the APU so that DLA's future buys for the APU are not overstated. DLA will report the results of these partnering actions with the Navy to the DoD IG when they have been completed.

DLA has taken a corporate approach to more effectively engage with the Military Services' weapon system program managers and OSD on contractor logistics support (CLS) initiatives focused toward reducing the total ownership cost to the weapon system. DLA has implemented a Lead Center concept to enhance weapon system support with the Defense Supply Center Richmond (DSCR) designated as the lead center for aviation systems support and the Defense Supply Center Columbus (DSCC) designated as the lead center for land and maritime systems support. DSCR and DSCC have assigned weapon

system support managers for a number of weapon systems to serve as a single point of contact with the Service PM to work programmatic and systemic DLA support issues. DLA actively participated in the Section 912c DoD Product Support Reengineering Implementation Team and was successful in having guidance addressing DLA's role incorporated into the team's July 1999 Product Support for the 21st Century Report. This includes guidance that the Service PMs and logistics commands should include DLA in weapon system integrated process teams and other Section 912c pilot program forums; consider DLA ICPs as sources of supply for common consumable items in integrated support contracts when they are best value; and use DLA inventories of spare parts unique to the weapon system before additional spare parts are purchased as part of a CLS strategy. DLA has also been successful in proposing similar language in the draft DoD 5000.2-R, Mandatory Procedures for Major Defense Acquisition Programs (MDAPs) and Major Automated Information System (MAIS) Acquisition Programs. DLA will continue to work with the Military Services and OSD to develop policy to enhance public and private partnering that provides the best value to the PM and warfighter.

Disposition: Action is ongoing. ECD: December 30, 2000

Under Secretary of Defense (Acquisition and Technology) Comments

OFFICE OF THE UNDER SECRETARY OF DEFENSE

3000 DEFENSE PENTAGON
WASHINGTON, DC 20301-3000

10 JUL 2000

MEMORANDUM FOR THE INSPECTOR GENERAL OF THE DEPARTMENT OF DEFENSE

SUBJECT: Draft Audit Report, "Commercial Contract for Total Logistics Support of Aircraft Auxiliary Power Units" (Proj. No. D2000CF-0061, formerly 0CF-0122)

I appreciate the opportunity to comment on the subject draft report regarding innovative purchasing strategies for commercial and noncommercial spare parts. The stated objective of the audit was to determine whether the cost savings, availability, and reliability data used in the business case analysis prepared by the Navy supported the decision to award a commercial contract to Honeywell for total logistics support of aircraft auxiliary power units. The audit also reviewed the cost savings and benefits from reduced maintenance times, longer mean time between failures, and the impact from technology refreshment.

My conclusion is that the Inspector General (IG) report is flawed and inconclusive. In this era of unprecedented change, it is critical that the acquisition workforce be encouraged to innovate and explore better ways of doing business. The report presents a negative assessment of a potential success story pioneered by the Navy in contracting for Department of Defense logistics support. As such, and because it does not present an adequate case for not moving forward with the subject contract, I cannot concur with its conclusions. Moreover, it is my understanding that the IG, in discussions with NAVICP, has concluded that the subject contract does offer significant positive opportunity and agreed to withdraw its opposition to proceeding with the contract. This fact should be explicitly stated in the report. As well, this turn of events suggests strongly that new or better information has been provided to the IG which would draw into question the report's validity.

I recommend the IG incorporate my general and specific comments (attached) which I believe will serve to present a more objective and accurate final report.

Stan Z. Soloway
Deputy Under Secretary of Defense
(Acquisition Reform)

Attachment
As stated

Commercial Contract for Total Logistics Support of Aircraft Auxiliary Power Units

General Comments

This office is concerned that this IG review is an attempt to second guess programmatic decisions of the auxiliary power unit program office. Many of the recommendations made by the IG are based upon possible but unquantified scenarios of what could occur. For example: More effective and efficient future NADEP-CP operations; Inappropriate depot item demand estimates; More favorable P-3 logistics engineering change proposal alternatives; and, Negative cost impacts of transferring the responsibility for procurement and management of consumable items from the Defense Logistics Agency for selective prime customers to the total logistics support (TLS) contractor. The IG is engaging in oversight practices that will, if unchecked, serve to thwart innovative and creative procurement practices.

The report fails to recognize the positive aspects of the innovative practices employed by NADEP-CP. Certainly, if these innovative practices are successfully applied, the taxpayer and warfighter would inevitably benefit.

Throughout the audit, the IG cites overhead rates and burdens used in their analysis and applied against the entire NADEP-CP operation. However, under "Repair Prices and Depot Demand for TLS Items" on page 7, in the 3rd paragraph, the audit refers to the NADEP-CP Production Department, where the majority of the auxiliary power unit (APU) repairs are performed. If, in fact, rates and overheads can be segregated to a specific cost center where the APU work is performed, rates that the IG uses in making their business case should be limited to that work center and not broadly applied against the entire depot. This distinction could account for the wide disparity between the NADEP-CP and IG business case analyses. If the basis of analyses were different, the IG should retract their findings, conclusions and recommendations and consider conducting a new analysis; one that will conduct a fair and accurate comparison. The audit, in the "Summary of Recommendations" questioned NADEP-CP's soundness of reasoning and the reliability of their data. Perhaps the question would be more appropriately posed to the IG's analysis.

In Appendix B. Prior Coverage, the audit mentions that during the last 5 years, the General Accounting Office has issued two audit reports and the IG, DoD, has issued seven audit

reports discussing either contractor estimating systems or prices for spare parts in the acquisition reform environment. Missing in the completed audits is the report: IG, DoD, Report No. 98-085, "Joint Audit Report: Joint Contracting for Depot Maintenance of Secondary Items," March 4, 1998. This exclusion is significant in that many of the report's recommendations are exactly what the Navy is doing with NADEP-CP and the total logistics support (TLS) effort. Since the Navy intends to expand the application of this contract to the other Services for support of their APUs, the Navy's efforts satisfy several recommendations from the earlier report including: "Establish and executing joint contracting maintenance agreements to achieve the most cost-effective depot maintenance possible," and "Ensure joint contracting is used when DoD criteria are met consistent with readiness of the Services." The audit recommends that the Department proceed and contract just as the Navy has done. The audit also cites that a related key goal of DoD is to reduce the operating and support costs for its weapon systems and equipment. Joint contracting is in keeping with this goal and Goal 9 of the "DoD Acquisition" National Performance Review, DoD Reinvention Impact Center, "To eliminate the layers of management through streamlined processes while reducing the DoD acquisition and related workforce..." The IG report should be revised to recognize that the Navy is attempting to conduct business as had been recommended in this overlooked report. This recognition is consistent with Honeywell's objectives which are stated as "The overall approach is to increase APU performance, reliability, maintainability, durability, and adaptability by applying advanced technology to engine component and accessories development."

The report cites a 10 year potential contract length with the Navy but fails to mention the means by which the Navy incentivizes the contractor to perform under the effort. Those incentives are significant in that they also limit the Navy's risk to any substandard performance on the contract. The total cost disparities cited by the IG assume a worst case scenario and additionally assume that the Navy would neither take steps to improve contractor performance nor terminate the relationship.

Specific Comments

Commercial Contract for Total Logistics Support of Aircraft Auxiliary Power Units

Recommendation 2.a.: We recommend that the Commander Naval Inventory Control Point Philadelphia: Withhold the award of the total logistics support contract for aircraft auxiliary power units until a business case analysis is completed using reliable data and an appropriate methodology.

Response: **Do not concur.**

NADEP-CP performed appropriate business case analyses and should be encouraged to award and begin contract performance on this novel initiative. Moreover, the IG, in discussions with the Navy has apparently agreed to this and thus this fact should be clearly stated in the report.

Recommendation 2.d.: We recommend that the Commander Naval Inventory Control Point Philadelphia: Withhold additional funds from Honeywell on the procurement of 95-2 turbine wheels outside the total logistics support contract.

Response: **Do not concur.**

This recommendation appears to be based upon the discussion on pages 13 and 14 of the draft report under the section titled "Logistics Engineering Change Proposal for P-3 Auxiliary Power Units" paragraph headed "Retrofit Schedule," that asserts a higher cost to repair 95-2 APUs than to repair 95-3 APUs, yet the 95-3 APUs have a higher reliability.

Withholding of funds is a contractual action taken to address a deficiency in work performed by the contractor. The draft report does not suggest such a deficiency exists. If the intent of the recommendation is to have the Commander direct no further repairs to 95-2 APUs be performed, that should be clarified in the recommendation.

Recommendation 2.k.: We recommend that the Commander Naval Inventory Control Point Philadelphia: Direct that clauses in the total logistics support contract prohibit Honeywell from including any costs associated with technology insertion related to the P-3, F/A-18, S-3, and C-2 APUs into any other Honeywell Independent Research and Development pools that will be allocated to any future Government contracts.

3

Attachment

Commercial Contract for Total Logistics Support of Aircraft Auxiliary Power Units

Response: **Do Not Concur:**

Under Cost Accounting Standard (CAS) 420, Honeywell is required to allocate IR&D costs for a business unit over a base representing the total activity of that business unit. If the DoD IG recommendation is implemented, Honeywell will be required to allocate the insertion costs for the P-3, F/A-18, S-3, and C-2 APUs over an allocation base that includes only the costs of those APUs. Assuming the insertion costs meet the CAS definition of IR&D, this is in direct contradiction to the requirements of CAS 420, which requires that IR&D costs be allocated over a base that represents the total activity of the business unit. The Commander does not have the authority to enter into a contract that violates the Cost Accounting Standards.

However, if the proposed TLS contract requires Honeywell to improve the reliability of APU's for the P-3, F/A-18, S-3, and C-2, the reliability improvements may not meet the definition of IR&D included in the CAS and FAR. CAS 420-30 and FAR 31.205-18(a) state that IR&D does not include the costs of effort that is sponsored by a grant or required in the performance of a contract. We therefore suggest the DoD IG recommend that the Navy, DCMA, and Honeywell seek an advance agreement on the appropriate treatment of these costs.

No comments submitted on Recommendations 1.a & b, 2.b, c, e, f, g, h, i, j, and 3.

On page 3, under "Different Methodologies for Business Case Analysis," the first paragraph mentions that NAVICP requested that the Navy Price Fighters prepare a business case analysis and that the Price Fighters contracted out the effort. As a point of clarification, the Price Fighters, in order to retain the best talent available to a specific effort, routinely contract to the best resources they can secure. This ensures a high quality and streamlined organization, with minimal overhead. The Price Fighter's mode of operation is a model commercial practice.

4

Attachment

Audit Team Members

The Contract Management Directorate, Office of the Assistant Inspector General for Auditing, DoD, prepared this report.

Paul J. Granetto
Terry L. McKinney
Henry F. Kleinknecht
Sharon N. Vasquez
Myra M. Frank